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Beyond 2017

The Australian Defence Force and amphibious warfare

Ken Gleiman and Peter J Dean

July 2015

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Cover image: NUSHIP *Canberra* prepares to berth in her homeport at Fleet Base East, Sydney. Photo courtesy Department of Defence.

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ADF primary operating environment. Map redrawn based on Australian Army Headquarters, *Army's Future Land Operating Concept, Canberra 2009*, p. 14. Produced with permission from the Department of Defence.

EXECUTIVE SUMMARY

The delivery of Australia's new amphibious warships, HMAS *Canberra* and *Adelaide*, is an important milestone in the ADF's quest to develop a strategically relevant amphibious warfare capability. Australia's position in the world makes the effort a strategic imperative, but the ADF still has a long way to go and many critical decisions ahead if it's to develop an amphibious warfare capability that's ready for future challenges. The resources committed to the effort and the associated opportunity costs have been and will be substantial, and the overall need for the capability must be weighed against other priorities, but if Australia's going to do it, we should do it properly.

This ASPI study began with the question, 'What decisions do ADF leaders need to make in order to ensure that Australia has an amphibious warfare capability that's effective and relevant to future challenges?' The aim was to identify some of the key decisions to be made over the next two years and provide specific recommendations on them. Over many months, we interviewed key offices and individuals involved in the effort to develop the amphibious capability.

We've developed six recommendations that can directly inform the decisions of leaders in the Australian Government and the ADF:

1. Clarify expectations
2. Establish and empower joint capability management
3. Empower command and control
4. Establish an Amphibious Centre of Excellence
5. Establish tiered amphibious readiness within the Army
6. Commission a study to prioritise the Army's enabling capabilities.

We hope that these recommendations will foster an informed debate, catalyse the necessary analysis, and help lead to timely and sound policy decisions. If the Australian Government wants to produce a true amphibious capability, there's much to be done. This short paper outlines what we think are some of the crucial steps.

RECOMMENDATIONS

This ASPI strategy makes six recommendations for the development of the ADF's amphibious capabilities.

Recommendation 1: Clarify expectations

The Australian Government should use the upcoming 2015 Defence White Paper (DWP) to clarify its expectations for a robust, combat-ready, scalable amphibious force in a changing and increasingly challenging strategic environment. That force must be able to conduct persistent strategic shaping, be ready to respond to crises, and be prepared to mobilise for amphibious warfare operations that are at the higher end of the spectrum of complexity and risk.

It's most important that the government clearly articulate that expectation. For the ADF leadership to drive capability and the necessary changes, such as those covered by the recommendations in this report, strategic guidance must state the full range of operational requirements expected from the capability. It must also assign readiness expectations that can inform the services' planning and force generation cycles.

The nature of the future operating environment demands that Australian strategic policy outline a vision for the ADF to possess an amphibious warfare capability that can conduct independent amphibious combat operations in the ADF's primary operating environment and the Indo-Pacific region. The ADF must be able to do so across the spectrum of conflict, but particularly in environments that are classified as 'uncertain', against non-peer military forces and irregular threats. In higher threat level environments, where complexity and risk are greater, the force must be able to conduct missions as part of a coalition with allies and partners.

The ADF should be expected to employ an Amphibious Ready Element (ARE) within the primary operating environment in a matter of days and to maintain the ability to employ a full Amphibious Ready Group (ARG) in less than 45 days. Furthermore, the ADF should be expected to conduct regional engagement activities with the ARE for up to 90 days of every year. By meeting those standards, the ADF will be able to act decisively in crises and mobilise for contingencies in the primary operating environment and Indo-Pacific region. The amphibious force must be able to spearhead the ADF's potential responses to the most likely regional challenges, such as humanitarian assistance and disaster relief missions, complex stability operations, limited forced-entry operations and littoral manoeuvre.

The DWP and the concurrent Force Structure Review need to emphasise the importance of joint warfare in general, and joint warfare in the primary operating environment and Indo-Pacific region in particular. Such operations are the key to Australia's contribution to maintaining the stability of the Indo-Pacific.

Recommendation 2: Establish and empower joint capability management

To ensure that the ADF's joint amphibious capability is relevant and sustainable over the long term, the Secretary of the Department of Defence and the Chief of the Defence Force should establish a permanent and empowered joint capability management system in Defence with responsibility for amphibious warfare. The full implementation of

the recommendations of the *First Principles Review: creating one Defence* (FPR 2015) will be a very good start, but success will depend largely on the legislated authorities of the Chief and Vice Chief of the Defence Force to direct capability decisions and manage amphibious warfare capability development.

Once the Australian Government has set out new strategic guidance, it's imperative that the Department of Defence changes the way that it manages the development of joint capability. Other studies of the development of joint capability have identified a similar need (Davies et al. 2014).

So far, the ADF has managed joint amphibious capability development by making the Chief of Navy the lead capability manager, working in close coordination and consultation with the Chief of Army. Beneath the service chiefs is an organisational structure consisting of hierarchical committees that, according to many of those interviewed, relies heavily on consensus. Despite the exceptionally impressive work of a non-permanent Joint Amphibious Capabilities Implementation Team and the Joint Capability Coordination Division, the development and delivery of HMAS *Canberra* and HMAS *Adelaide* and the certification of an ARG in 2017 won't be the end of amphibious warfare development in the ADF. Rather, it will be only the first stage of a continual cycle of development to ensure that this world-class capability reaches its full potential and continues to evolve.

Amphibious warfare capability development and evolution will continue well into the future. Therefore, the current organisation will require changes in roles and missions. Those changes will necessitate a streamlined, empowered and permanent joint amphibious warfare capability system. This new structure must come under the authority of a joint capability manager who has the resources and authority to set requirements for the procurement of capability systems that support amphibious warfare, joint systems integration, and other capabilities that fall on the seams between the services' interests.

Recommendation 3: Empower command and control—it's a full-time job

The Chief of the Defence Force and the service chiefs should establish a permanent land component headquarters element for amphibious warfare; it should be under the command of a jointly staffed Amphibious Task Group (ATG).

Amphibious warfare operations are some of the most complex operations in joint warfare. A strategically relevant amphibious warfare capability requires nothing less than permanent headquarters elements that have command authority over the elements assigned to support amphibious operations. For the ADF, this means ensuring that the ATG is a Navy-led joint organisation that can deploy on short notice to command an ARE, and can mobilise and employ an ARG. Most importantly for the ADF and the Army, this means establishing a permanent landing force headquarters staff led by an O-6 (Colonel) serving as the Commander of the Landing Force (CLF). The CLF would then have rank parity with the Navy's Commander Amphibious Task Force (CATF). While this might require some modest growth in end strength, many of the positions could come from existing positions at the Deployable Joint Force Headquarters and the Joint Operations Centre. The new joint structure establishes permanent command and control architecture with a joint staff enabled Commander Amphibious Task Group with permanent component staffs. This will provide valuable continuity and the expertise needed to manage complex amphibious operations.

For this permanent joint HQ to operate effectively, the ADF will need to ensure that it allocates some of its best and brightest personnel and that the HQ is effectively resourced. The HQ will be required to coordinate multi-service force-generation cycles, lead strategic shaping (engagement) operations, and be prepared for both crisis response and major contingency operations. The Amphibious Task Group (ATG) and its component CLF and CATF command elements will be force employers, and the services should take on their proper roles as amphibious force generators, tasked with raising, training and sustaining the elements that will be assigned to the ATG.

Recommendation 4: Establish a joint Amphibious Centre of Excellence

The Chief of the Defence Force, with the support of the service chiefs, should build and preserve institutional amphibious warfare knowledge and culture by establishing a joint Amphibious Centre of Excellence (ACE).

The ADF currently lacks the tradition, culture and organisational expertise needed to maintain and employ a world-class amphibious warfare capability. Individuals and organisations across the ADF have done an impressive amount of work over the past several years to facilitate institutional change. This has included the embedding of US Marine Corps and Royal Marines officers into the ADF, lateral transfers from the Royal Marines and Royal Navy, and spending millions of dollars on sending ADF personnel to US amphibious warfare schools. To maintain this progress, to capture expertise and to evolve this capability, the ADF must move beyond temporary structures and foreign training. It needs to build a permanent learning institution with the mission of inculcating amphibious warfare expertise across the ADF. This will allow it to evolve doctrine, provide for the training of individuals, provide expertise to other ADF and single-service courses and education facilities, generate training teams to assist in unit-level training, and provide highly qualified staff to certify amphibious elements. All of these activities are important for the maintenance and evolution of amphibious operations in the ADF.

Recommendation 5: Establish tiered amphibious readiness, integrated within Plan Beersheba, in the Army

The Chief of Army should establish a system of tiered amphibious readiness that provides a dedicated, top-tier, high-readiness ARE and a proficient ARG.

Of the three services, the Army faces the greatest challenges in meeting the likely demands of the Australian Government for amphibious warfare capability. More than three years ago, in Plan Beersheba, the Army announced a strategic decision to build a sustainable, balanced force that is not optimised for any specific mission, but is instead constructed to be adaptable, relevant and ready for the broad spectrum of warfare. The requirement for a highly capable joint amphibious force doesn't change the strategic logic of Plan Beersheba or the utility of the model of three similar combined arms brigades contained in the plan.

However, Plan Beersheba doesn't yet adequately meet the joint amphibious capability demands of likely operations within the ADF's primary operating environment and the Indo-Pacific region. Therefore, we recommend the development of tiered amphibious readiness that integrates with the Beersheba model.

This will require the Army to invest significant resources in elements that force-generate a standing ARE capability, especially combat support and combat service support elements (often referred to as 'enablers'). The units that generate the elements of the landing force of the standing ARE should be dedicated to amphibious warfare. The ground combat element of a standing ARE can be achieved through the development of 2nd Battalion, Royal Australian Regiment (2RAR) into a three-combat-team unit supported by a small boats company and the permanent attachment of key combined arms elements. This would also involve the specialisation of other combat support, combat service support and aviation elements in amphibious operations to support an ARE. Although it mightn't be possible to achieve this by 2018, especially in areas such as aviation, the ADF should move in this direction with a clear understanding about which elements and tasks require greater specialisation in amphibious operations.

To ensure the integrity of Plan Beersheba, the Ready Battle Group (RBG) and attached enablers within the ready brigade should be used to provide the necessary additional combat power when amphibious operations require the deployment of an ARG. The elements of the standing ARE combat team would be an integral part of the ARG and perform key functions of a pre-landing force to provide an initial entry capability and for specialist amphibious raids and other related tasks. During the readying cycle of Plan Beersheba, RBGs must be trained to a minimum specified standard of *proficiency* in amphibious operations by drawing on personnel, training teams, courses of instruction and programs developed at the Amphibious Centre of Excellence. Ensuring the training of the RBG to a standard of proficiency (as opposed to specialisation or expertise) will incur costs in both time and resources.

Under this tiered readiness model, every infantry battle group in the Army would receive training, instruction, experience and deployments in amphibious operations within six years. The continuation of this cycle would develop the depth of knowledge about amphibious operations across the Army.

This model would also provide depth in amphibious warfare specialty tasks (the standing ARE) and a breadth of proficiency across the whole force (the RBGs). This would be a uniquely Australian solution to a uniquely Australian amphibious warfare challenge.

Recommendation 6: Commission an Army staff study to determine the priority growth necessary for the development of key combat support and service support capacity

The Army is suffering from a deficit in key combat support and combat service support elements. Even under the current force generation model of Plan Beersheba, while the combat brigades are on an ideal three-to-make-one readiness cycle (with elements at reset, readying and ready), many of the key support elements in the 6th Combat Support, 16th Aviation and 17th Combat Service Support brigades are on much tighter cycles, in some cases only one element deep. The additional requirements of maintaining a standing ARE and supporting Special Operations Command (SOCOMD) already add to a high operational demand caused by the need to support the ready and readying combat brigades. It's difficult to see any credible options for the Army without some growth in end strength.

An internal Army study would help the Chief of Army to identify requirements and then prioritise growth towards the enabling elements that are in the highest demand and those that require the most specialisation to support amphibious operations. It's highly likely that growth will be needed in aviation, engineering and logistics.

CHAPTER 1

Introduction

In November 2014, the RAN introduced Australia to its newest and largest warship, HMAS *Canberra*. The delivery of this $1.5 billion, 27,000-tonne amphibious assault ship was a significant milestone in what has, so far, been a decades-long effort to build a robust Australian amphibious warfare capability. Soon, *Canberra's* sister ship HMAS *Adelaide* will be commissioned. These ships are referred to as 'landing helicopter docks' (LHDs), and are designed to support multiple vertical take-off platforms during operations; these particular ships are also able to deploy land forces by maritime landing craft.

When HMAS *Adelaide* is commissioned, Australia will have the two most important pieces of hardware in the quest for amphibious warfare capability, but it's well understood across the ADF and the defence community that there's still a long way to go. It's easy to focus too narrowly on the hardware involved in capability development. These ships are just 'hosts' that enable amphibious operations. Fundamental inputs to capability[1] other than major systems are needed to develop capability; most significantly, the integration of other key inputs more often than not presents the greatest challenge for any military service. Building a complex joint capability, such as amphibious warfare capability, requires the integration of the efforts of more than one service and is therefore an even more difficult challenge. The ADF is still some time and many tough decisions away from achieving its amphibious warfare potential.

The ADF has developed a detailed, integrated and truly joint plan to develop and validate an impressive amphibious warfare capability by mid-2017. In the culminating event of 2017, it will test its ability to deploy an Amphibious Ready Group.[2] This powerful joint force element will be a proof of concept, but won't yet be a sustainable on-call capability or 'ready' force.

Indeed, the ADF has yet to approve any conceptual plans for the sustainment of a joint amphibious warfare capability past 2017. It has yet to determine requirements for the joint readiness levels, the integrated joint force generation plan or even the mission expectations for the joint amphibious force. Significant capability gaps and shortfalls have been identified and require solutions.

Australia's political and military leaders will need to make several key decisions in the next two years if they want to develop an amphibious warfare capability that's relevant and ready for the crises and contingencies of the current and future operating environments. All of those key decisions require the acceptance of risks and trade-offs. None will be easy.

Purpose

This ASPI study began with the question, 'What decisions do ADF leaders need to make to ensure that Australia has an amphibious warfare capability that's effective and relevant to future challenges?' The aim was to identify the decisions that ADF leaders must make in the next two years and to provide general and specific recommendations

for those decisions. We hope that these recommendations will foster an informed debate, catalyse the necessary analysis and help lead to timely and sound policy decisions. If the Australian Government wants to produce a true amphibious capability, there's much to be done. This report outlines what we think are some of the crucial steps. The resources and opportunity costs will be substantial, and the overall need for the capability needs to be weighed against other priorities, but if Australia's going to do it, it should be done properly.

Methodology

In conducting this study, we first reviewed the need for an Australian amphibious warfare capability. This included a thorough examination of government decisions in the past several years on the procurement of the amphibious assault ships and the guidance for capability development. We also examined strategic concerns and studies on trends in the ADF's primary operating environment and the Indo-Pacific region. We then conducted a series of interviews with individuals and offices with responsibilities in the development of amphibious capability, including people in joint organisations dedicated to capability development and service component elements, and service members from allied countries that maintain amphibious forces. We did not review classified material, and in all interviews we agreed not to attribute statements to individuals or offices. A draft of our report was circulated for comment to all those who participated in interviews and to some others with whom we weren't able to meet. The comments led to mostly technical changes and rewrites to improve clarity and precision.

Structure

The remainder of this report is structured to follow the methodology logically:

- Chapter 2 reviews Australian strategy and the ADF's engagement in amphibious operations and assesses the need for an amphibious warfare capability in the contemporary operating environment.
- Chapter 3 proposes credible options for the employment of a robust ADF amphibious capability into the future in the primary operating environment and Indo-Pacific region. It emphasises the logic behind procurement decisions and is the basis for our first recommendation.
- Chapter 4 provides our assessment of what the ADF's doing about amphibious warfare capability, from the Defence offices in Canberra down to the units that are playing key roles. It describes some of the admirable work that's already been done, highlights the shortfalls and gaps that must be addressed, and sets out our recommendation that the Australian Government clarify its expectations for the ADF and insist on an amphibious warfare capability that's realistically tailored to the limitations of the ADF. Many of our subsequent recommendations depend on the government's acceptance of the logic behind this recommendation. If the government decides that the capability need only be prepared for lower threat and complexity missions, then some of the investment in capability and the scope of the subsequent recommendations could be adjusted.
- Chapter 5 outlines and reviews the key areas of development in the Navy and joint environment for the current amphibious capability program.
- Chapter 6 focuses on the Army and the major reforms that are needed to chart a pathway ahead for that service.
- Chapter 7 gives the report's overall conclusions and ties together the various chapters and recommendations.

Chapters 4, 5 and 6 all include details of the report's overall recommendations for the capability after the proof of concept for the Amphibious Ready Group in 2017.

CHAPTER 2

Strategy, the ADF and amphibious warfare: past and present

The Gallipoli landings of 1915 are an instantly recognised part of the Anzac legend and an integral part of Australian military history. Yet, beyond questions of whether or not the troops were landed on the wrong beach, most Australians pay little attention to the amphibious component that enabled the campaign. Even fewer would know that Australia's first major military action in World War I was a joint amphibious expeditionary operation against German New Guinea in 1914.

While most Australians are familiar with the epic battles on the Kokoda Track during World War II, few understand the fundamentally maritime nature of the New Guinea campaign, and even fewer know much about the major amphibious operations by our forces from 1943 to 1945 as part of the war in the Pacific, which were the largest and most complex military operations ever undertaken by Australia's military forces.

Amphibious warfare remained significant for the Australian military after World War II. It included large-scale US amphibious operations in the Korean War, the maritime sustainment of Australian operations in Vietnam, the deployment of ADF amphibious forces in Vanuatu (1988), Somalia (1993), Bougainville (1990 and 1994) and East Timor (1999 and 2006), and numerous humanitarian and disaster relief operations, such as after the 2004 Indian Ocean earthquake and tsunami.[3]

Beyond this rich but largely overlooked amphibious tradition is the fact that Australia's the only one of the six geographically largest countries that's completely surrounded by water. In addition, Australia is directly south of one of the world's largest archipelagic and littoral regions. Despite these facts of history and geography, we have for a long time lacked a maritime consciousness (Evans 2014). Only at intermittent points in its history has the Australian military been required to develop, maintain, deploy and sustain a major amphibious warfare capability.

Our failure to recognise the need for and importance of a robust amphibious warfare capability in the periods before and after World War II was due to our strategic circumstances and our deep alliance relationship with 'great and powerful friends'—first the UK and then the US. Since before Federation in 1901, we've relied on our major alliance partners maintaining maritime dominance over the Asia–Pacific. This led to the defence debate in Australia being largely polarised into two opposing intellectual traditions: the 'defence of Australia' doctrine, and an 'expeditionary strategy' involving distant deployments in support of Australia's values, interests and allies. The peacetime focus of strategic planning on the continental defence of Australia and Australia's strategic cultural tradition of using military force in Europe and the Middle East in support of allies has led to what Michael Evans (2014) has described as a 'tyranny of dissonance' in Australian strategy.

The binary distinction between continental defence and an expeditionary strategy left little room for amphibious warfare in Australian defence policy. Yet, when Australia has had to undertake complex military operations within its primary operating environment, an amphibious capability has been critical to success, while the absence of such a capability at critical times has limited our strategic options. The latter point was obvious during Operation

Morris Dance, the response to the military coup in Fiji in 1987. At that time, the ADF lacked any serious amphibious capability, so Morris Dance proved to be 'a sobering demonstration of the limits of Australian military power … [in that] if it had wanted to or needed to, Australia simply could not have deployed a land force into the South Pacific safely and effectively if there was any prospect of onshore opposition to such a move' (Blaxland 2013). In the 1980s and 1990s, the focus on the defence of Australia through sea denial in our northern approaches led to 'a dark period for amphibious and joint operations', and amphibious thinking and capability was 'only kept alive in largely unread doctrine or through heavily orchestrated training exercises' (Parkin 2002:v).

After Operation Morris Dance, there was some recognition of the limitations caused by the lack of a robust ADF amphibious capability. This led to decisions in the 1991 Force Structure Review that resulted in the purchase of HMAS *Manoora* and *Kanimbla*, two surplus US Navy Newport-class 8,500-ton tank landing ships, redesignated as 'landing platforms amphibious' (LPAs).

The catalyst for the leap in capability that's to be provided by the new 27,000-tonne Canberra-class LHDs was the strategic shock of the INTERFET operation in East Timor in 1999. Reflecting on his time as commander of this joint expeditionary operation, Major General Peter Cosgrove stated that throughout the operation the ADF's limited amphibious assets were a 'capability of first resort'.

While in many respects this was unsurprising, given the archipelagic geography of the region and the need for force projection and maritime manoeuvre, INTERFET highlighted not only the potential requirement for amphibious operations but also the ADF's stark lack of such capability at the time (Borgu 2004:2). The ADF's experience in INTERFET was reinforced in 2006 when it was again required to intervene in East Timor as the security situation deteriorated. Using HMAS *Tobruk*, *Manoora* and *Kanimbla* (the LPAs were still being modified in 1999 and weren't yet in service), the ADF was able to deploy an infantry battalion group including light armoured and support vehicles entirely over the beach, as well as providing maritime-based helicopter support.

With the East Timor experience fresh in the minds of defence planners, the *Defence 2000: our future defence force* DWP committed the nation to purchasing two new amphibious vessels to replace *Tobruk*, *Manoora* and *Kanimbla* in order to meet the third of the paper's five objectives—'Stabilisation of South West Pacific', which the government deemed a 'self-reliant task'. Later, the decision to purchase the two Spanish-designed LHDs emerged through the 2003 Defence Capability Review and the Defence Capability Plan 2004–2014.

Over the past decade and a half, it's become clear that the centre of global economic and strategic power has moved to the Indo-Pacific region.

The LHDs are arriving at a critical time for the ADF. Australia's strategic environment has been changing rapidly since the decision, a decade ago, to purchase them. Over the past decade and a half, it's become clear that the centre of global economic and strategic power has moved to the Indo-Pacific region. This means that maintaining a robust amphibious warfare capability has become an even greater imperative than it was the period immediately after INTERFET.

As the Indo-Pacific undergoes significant transformation, 'the tyranny of dissonance' between geography on the one hand and Australia's history, values and political interests on the other is now gone. Australian trade and investment are now firmly centred on the Indo-Pacific region; our major alliance partner, the US, has announced a major strategic 'rebalance' to the Asia–Pacific; and Australia's long-term engagement in the South Pacific is set to remain a 'non-discretionary task' for the ADF. At the same time, we've been working to improve our defence diplomacy and engagement with regional partners such as Indonesia, Singapore, Japan, India, Malaysia, Vietnam and the Philippines.[4]

Recognition of the importance of Australia's and the wider region's geography has led to the ADF embracing a maritime strategy in which amphibious and joint expeditionary operations in the Indo-Pacific will play a significant role. This move was reflected in *Defence White Paper 2013*, which devoted an entire section to maritime strategy and referred to amphibious 'capability', 'operations', 'training' and 'forces' no fewer than 43 times. The amphibious-related sections included discussions of joint and enabling forces, land forces and naval forces, and stated that amphibious capability was the 'central plank in our ability to conduct security and stabilisation missions in the [South Pacific] region'. In addition, it highlighted the critical importance of this capability to 'cooperation and engagement activities in the South Pacific and Timor-Leste, including bilateral or multilateral exercises with regional security forces' (Department of Defence 2013, paragraphs 3.42–3.47, p. 29).

It's reasonable to assume that such an approach will continue under the Abbott government and in its DWP, which is due later in 2015. The first Defence Minister in the Abbott government, David Johnston, suggested during his time in office that the LHDs and a robust Australian amphibious warfare capability would play a central role in the strategy for the employment of the ADF. Speaking alongside the American and Japanese ambassadors to Australia and the Commander of the US Pacific Fleet, Admiral Harry B Harris, Jr, at the annual dinner of the Kokoda Foundation (now the Institute for Regional Affairs) in Canberra on 31 October 2013, Johnston emphasised the critical importance of amphibious warfare capability for regional engagement and deeper relations with Australia's allies and regional partners. He noted that the 'Landing Helicopter Dock ships coming onto our scene … will be of a significant strategic nature in the way in which we do our business in this region into the future' (Johnston 2013).

The development of this 'strategic' amphibious capability is also seen as playing a critical part in our continuing close strategic partnership with the US...

The development of this 'strategic' amphibious capability is also seen as playing a critical part in our continuing close strategic partnership with the US, which has taken on a new significance in the region since Washington's 'pivot' or 'rebalance'. As the *US Quadrennial Defence Review 2014* notes, more will be asked of Australia and other allies to 'undergird the ability of the United States to face future crises and contingencies' and especially to grow partners' 'capacity … [to] play greater and even leading roles in advancing mutual security interests in their respective regions' (US DoD 2014:9). These are all areas in which the ADF's new amphibious warfare capability has the potential to play a significant role in the Indo-Pacific region.

The future of the primary operating environment and the Indo-Pacific region

With the shift of the global strategic centre of gravity to Asia, the ADF will be focusing more and more on the Indo-Pacific region and the area defined in the 2009 DWP as the primary operating environment (Department of Defence 2009). As Robert Kaplan reminded us recently, geography matters (Kaplan 2012), and the Indo-Pacific region and the primary operating environment are one vast maritime, archipelagic and littoral region. The primary operating environment (Figure 1) encompasses the area from the eastern Indian Ocean to the island states of Polynesia, and from the equator to the Southern Ocean. This area contains all of Australia's sovereign territory, including offshore territories such as Cocos (Keeling) Islands, Christmas Island, Heard and McDonald Islands, Macquarie Island and Norfolk Island, our exclusive economic zone, and waters adjacent to the Australian Antarctic Territory.

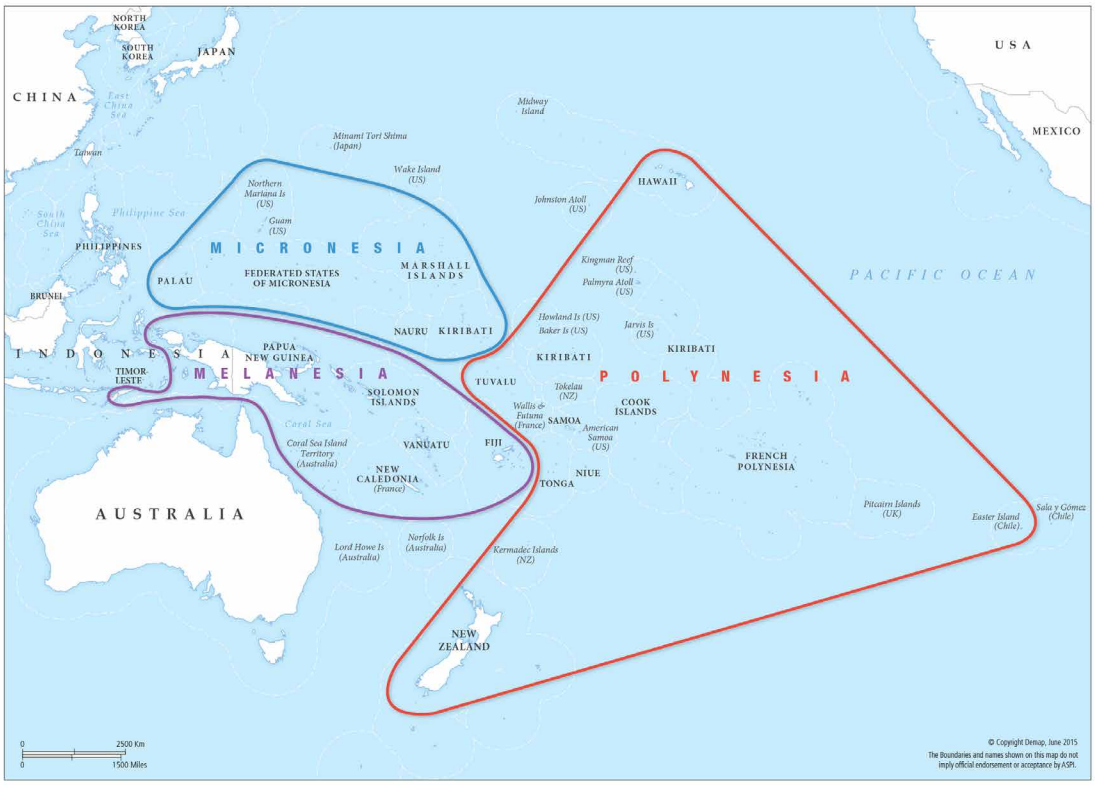
Of critical importance is that 70% of the world's population, 80% of countries and virtually all centres of international trade are in littoral regions. Among the 63 most populated urban areas (with 5 million or more inhabitants in 2011), 72% are on or near the coast and two-thirds are in Asia. In the Pacific region, most of the significant concentrations are adjacent to the coast.

In Australia, 82% of the population lives within 80 kilometres of the sea. In our near neighbour, Indonesia, which has the longest coastline of any country, 65% of people live within 50 kilometres of the coast and 75% of cities are in low-lying coastal areas. Further north, 70% of Malaysia's population lives in cities clustered on the coast of the Malayan Peninsula. The South Pacific is dominated by the island and archipelagic states of Melanesia and Polynesia (Figure 2).

Figure 1: The ADF's primary operating environment

Map redrawn based on Australian Army Headquarters, *Army's Future Land Operating Concept, Canberra 2009*, p. 14. Produced with permission from the Department of Defence.

Figure 2: The island states of Micronesia, Melanesia and Polynesia



Throughout the primary operating environment, most of the strategic infrastructure and population centres are within 25 kilometres of the coast (Figure 3), so the littoral regions and access to them are critical for any military operation across the spectrum of conflict.

Figure 3: Population concentrations in the ADF's primary operating environment

Map redrawn based on Australian Army Headquarters, *Army's Future Land Operating Concept,* Canberra 2009, p. 13. Produced with permission from Department of Defence.

Critically, within the littoral regions only 5% of the coastline is man-made and can easily be used by ships and craft to unload. However, 25% of beaches can take landing craft, 75% of coastlines are accessible by hovercraft, and small boats can access 95%.

Getting into the littoral zone therefore involves amphibious operations. As the importance of the primary operating environment and the Indo-Pacific region grows, so too will the requirement for the ADF to conduct operations in this region that will be highly reliant on sealift and amphibious warfare capabilities.

The significance of amphibious assets is due not only to the rising importance of the littorals, but also to the extreme versatility of those assets. They can operate along the full spectrum of operations, from disaster relief and search and rescue through to the more traditional roles of amphibious assaults, raids, demonstrations and withdrawals. While to many the word 'assault' conjures up operations in the distant past, such as in Normandy or on Iwo Jima, that style of amphibious assault was a bespoke solution to a very specific strategic problem. Such operations are an aberration in the long history of amphibious warfare.

Getting from ship to shore is no easy feat, and any significant operation of this type takes on most of the characteristics of an assault even if the landing is away from the 'enemy' or the environment is permissive. As David Kilcullen has stated, it remains much more likely that in any future scenario:

> irregular operations that are the historical norm … [will require] … an advanced force … to seize a port, harbor, or airfield as a sea or air point of entry for follow on forces, perhaps against light irregular opposition, [to] then put it [the port or airfield] back into service as a base of operations. In fact, seizing a lodgement area large enough to cover both a seaport and airfield will probably be a prerequisite for virtually any long term operations in a littoral environment. (Kilcullen 2013:278).

The ADF's experience in East Timor in 1999 is a classic example of an operation of this type.

The focus on the primary operating environment and the Indo-Pacific region and the utility of an amphibious capability brings to the fore two of the principal tasks for the ADF laid down in the 2013 DWP:

- Task 2: contribute to stability and security in the South Pacific and Timor-Leste
- Task 3: contribute to military contingencies in the Indo-Pacific region, with priority given to Southeast Asia.

ADF forces also have an enduring requirement to be able to contribute to operations outside of the Indo-Pacific such as Task 4 contributing 'to military contingencies in support of global security.'

Carrying out tasks 2 and 3, combined with the 2009 DWP's emphasis on the 'expansive strategic geography' of these regions, 'requires an expeditionary orientation on the part of the ADF at the operational level, underpinned by requisite force projection capabilities'. Any similar approach in the upcoming 2015 DWP will require a greater emphasis on the ADF's new amphibious capability in the post-2017 strategic environment.

CHAPTER 3

The future for a robust ADF amphibious warfare capability

In meeting principal tasks 2 and 3 and contributing to Task 4 in the 2013 DWP, one of the greatest assets that an amphibious capability can bring to the ADF is its high level of flexibility. Amphibious ships and their embarked land forces are often referred to as the 'Swiss Army knife of the joint force'.[5]

Traditionally, amphibious assault ships undertake four main types of amphibious military operation: raid, withdrawal, demonstration and assault. An amphibious assault is the pinnacle of power projection from the sea and is one of the most complicated operations that any military can undertake. In the history of warfare, the vast majority of amphibious assaults have been indirect (that is, landing where the enemy is not), exploiting the unique maritime manoeuvre characteristics that a sea-based joint force possesses. However, any amphibious assault, whether indirect or even into a permissive environment, requires a core of highly trained specialist amphibious forces combined with other forces with a level of amphibious proficiency.

While amphibious assaults, raids, withdrawals and demonstrations will continue to play a critical role in likely military contingencies, other types of amphibious operation have been far more prevalent in recent years. For example, the US Navy and Marine Corps conducted 107 amphibious operations between the end of the Cold War in 1990 and 2010. Seventy-eight did not fit into the main categories of assaults, raids, withdrawals or demonstrations. Most were 'non-combatant evacuations, disaster relief, or similar crisis response operations conducted in austere and uncertain environments' (US Navy 2010:61).

This 'other' category is the fifth mission requirement for amphibious operations.[6] These missions play a vital role in contributing to 'conflict prevention and crisis mitigation' and include mission subsets such as 'security cooperation, foreign humanitarian assistance, non-combatant evacuation operations, peace operations, or recovery operations' (DTIC 2014: pp. I-2, I-3).[7] In the immediate future, when the ADF is tasked with initially providing an Amphibious Ready Element (ARE), missions of this type will be the most likely and feasible for the employment of the ADF's amphibious capability.

Humanitarian assistance and disaster relief operations

The new LHDs' command and control systems, on-board hospital, vertical and sealift capacity, bulk supplies, large accommodation spaces and ability to project force inland mean that they're highly capable vessels for humanitarian assistance and disaster relief (HADR) operations.[8] They can provide engineering assets, medical support and security forces to assist in HADR missions across a broad spectrum, from responses to earthquakes, cyclones and tsunamis to search and rescue operations, such as those conducted in 2014 after the disappearance of Malaysia Airlines Flight 370.[9] The HADR role has both domestic and international dimensions, and is also an area where the RAN has a long history.[10]

The requirement for the ADF to provide capabilities for domestic and international HADR is ongoing, and the occurrence of more extreme weather events and the impact of climate change may result in higher operational tempo for HADR missions in the near region and across the Indo-Pacific. This has been evident in recent years after cyclones Wilma (2011), Jasmine (2012), Sandra (2013) and Pam (2015) in the South Pacific, the 2011 tsunami that devastated large parts of Japan and led to the Fukushima nuclear disaster, and Typhoon Haiyan, which hit the Philippines in November 2013. The other key HADR mission for an amphibious capability is to undertake non-combatant evacuation operations. Whether an operation is needed because of a natural disaster or a major political or security crisis in Australia's region, or elsewhere, the characteristics of an amphibious force make it ideally suited for this work.

For responding to such events, the new RAN LHDs and the Bay-class HMAS *Choules* ('landing ship, dock', or LSD) provide a quantum leap in capability over the now-retired Kanimbla-class LPAs. They position the ADF to provide a much enhanced response in local and international HADR and non-combatant evacuation operations.[11]

Presence: military diplomacy, exercises and shaping operations

The new ARE and the larger Amphibious Ready Group (ARG) capability will also allow the ADF to substantially step up its 'presence' in the immediate region (Dean 2013). As the RAN's maritime doctrine states, the 'use of forward presence can be critical in the process of shaping events to accord with Australia's national objectives' (RAN 2010:40). The use of the Australian ARE and ARG in military diplomacy, combined exercises with allies and partners, or both, will allow the ADF to significantly improve its presence in the Indo-Pacific.

> The ARE and ARG will allow Australia to plan and undertake new and more advanced joint and combined military exercises in the region, as well as to participate in other major regional multilateral exercises...

The ARE and ARG will allow Australia to plan and undertake new and more advanced joint and combined military exercises in the region, as well as to participate in other major regional multilateral exercises, such as Cobra Gold in Thailand, which includes 13,000 personnel from the US, Japan and other key Southeast Asian nations. In such activities, the flexibility of the sea base provided by the ARE and ARG offers the ability to sustain a forward presence for an extended period, while providing high levels of force protection and allowing flexibility in the use of air and ground elements in a range of engagement activities. As part of the ADF's new maritime strategy, the amphibious capability will provide a force multiplier for regional diplomacy. Thus it will play a critical role as part of Australia's emphasis on 'developing deeper, broader tailored long-term defence partnerships' in the region as well reinforcing Australia's value as a 'strategy and defence partner to countries in the region' (Shoebridge 2012).

Contingency operations: regional and maritime security

While the ADF's amphibious force is most likely to participate in non-combat operations, this capability shouldn't ignore critical war-fighting skills. The ADF's maritime strategy isn't based on peacekeeping and HADR, and neither should its amphibious force be. The need to develop war-fighting capabilities for the Australian ARE and ARG is critical. While the use of Australia's amphibious force in 'hard' power situations may well be the least likely employment of that force, the hallmark of a professional military is that it prepares a force for the most dangerous, if less likely, course of action.

For many people, future war-fighting scenarios are difficult to imagine, but the exceptional fluidity of the modern security environment means that those scenarios mustn't be overlooked. The ability to fully exploit the ADF's new amphibious capability in all areas, including military diplomacy and combined military exercises with allies and partners, requires the ADF to cultivate its war-fighting skills through developing the ability to undertake the four core amphibious mission profiles. The ability to mount raids, demonstrations, withdrawals and limited assaults will also be a critical enabler to HADR and non-combatant evacuation operations in more austere environments. To facilitate such missions, it may be essential for the ADF to secure an air or sea point of entry, either independently in Australia's immediate region or as part of a coalition force with allies and partners in other regions.

While the South Pacific may well now be seen as an 'arc of opportunity' (Wallis 2012), peace and security in the region remain fragile. Stability and security in the South Pacific remains second only to the defence of Australia in the ADF's principal tasks and priorities, and it's highly likely that the ARE and ARG will spend a significant amount of time operating in the near region in support of this task. A developed amphibious capability will allow the ADF to not only provide a stabilising influence on the region through its presence but also to take on a range of security missions. One critical requirement is that it's able to project force and put a landing force ashore to achieve a deterrent and coercive effect.

An examination of the ways Australia has used force in our region, as in Chapter 2, reveals a clear joint maritime focus of those operations, which at different times have used the full amphibious mission set. As John Blaxland (2013) has noted, the new LHDs, with a fully capable embarked land force, are a 'game changer' for ADF operations in the South Pacific.

The threat from terrorists or other non-state actors has led to amphibious forces across the globe being deployed to support a range of operations, including assaults, raids, withdrawals and demonstrations.

The ARE and ARG also have an important role to play in unconventional warfare and security operations in Australia's near region and beyond. The threat from terrorists or other non-state actors has led to amphibious forces across the globe being deployed to support a range of operations, including assaults, raids, withdrawals and demonstrations. Amphibious craft have been used extensively in counter-piracy operations in the Gulf of Aden and the Indian Ocean and against radical groups such as Al-Shabaab in Somalia and Jemaah Islamiyah and Abu Sayyaf in the Sulu archipelago (Friedman 2012). The ongoing threat from radical Islamist groups operating throughout the Indo-Pacific region, as well Australia's continuing need to police our maritime borders, to provide security within our maritime waterways and to protect offshore islands and economic infrastructure, means that there are any number of possible security missions that the ARE and ARG may have to undertake. These potential missions are also all relevant to the 2013 DWP's fourth principal task for the ADF: support for global security.

The ADF has already demonstrated the critical capabilities that an amphibious force brings to these missions. Australia's amphibious ships participated in maritime security operations as a part of operations Slipper and Manitou, and in 2009 Australian warships and aircraft in the Middle East were involved in counter-piracy operations and maritime interdiction off the Horn of Africa as part of Combined Task Force 151, in which US amphibious ships played a critical role (CMF n.d.).

Alliance cooperation, regional security and burden sharing

Another key element for the development of the Australian amphibious force is the potential for a number of missions in concert with the US and regional partners. The potential to cross-deck US Marines on RAN ships can be easily developed through the presence of Marine Rotational Force Darwin. In addition, in October 2014, the US Navy's Chief of Naval Operations, Admiral Jonathan Greenert, committed to releasing traditional 'grey hull' amphibious ships to create a US Amphibious Ready Group and Marine Expeditionary Unit (ARG-MEU), using the marines in Darwin to operate in Southeast Asia for up to 180 days per year by the end of the decade.

Admiral Greenert reiterated this commitment during his recent visit to Australia, which included a visit to Darwin to inspect infrastructure and port facilities for the amphibious ships. He also said that the US is committed to raising Marine Rotational Force Darwin to full MEU status to operate with an ARG, and indicated that the three US amphibious ships for this task have been identified. Such a move provides enormous opportunities for combined training, coordinated engagement activities and shared security missions in Australia's northern waters and throughout the South Pacific, Southeast Asia and the eastern Indian Ocean.[12]

Furthermore, the combination of a US Navy – Marine Corps ARG-MEU with an ADF ARG in the region provides a range of other potential opportunities. In any major crisis in the region, pooling US and Australian amphibious forces along with other assets would allow the formation of a combined US–Australian expeditionary strike group.[13] At low threat levels, it would allow an extended presence beyond 180 days, or burden sharing through a rotation of the US ARG-MEU and the ADF's ARE and ARG to provide a maritime presence for most of the year in the South Pacific, Southeast Asia and the eastern Indian Ocean.

As long as such a grouping of US and Australian forces has a clear mission focus that's congruent with the strategic objectives of both nations, a combined or rotational deployment force would enhance US and Australian engagement in Southeast Asia, support the US rebalance to the Asia–Pacific, and help to fulfil the aims of US and Australian policies of deeper regional engagement.

Whether or not such initiatives are developed, Australia's new amphibious capability provides clear opportunities to achieve Australia's strategic objectives in the Indo-Pacific region, promote regional maritime security, and provide for a more capable and enduring HADR response in the region.

CHAPTER 4

Assessment: the guidance gap

This chapter examines how the LHD acquisition changes the ADF's amphibious warfare calculus, describes what the ADF has been doing to make the most of the ships' capabilities and to develop amphibious warfare doctrine, and notes the effects of resource constraints, the need for trade-offs and a lack of government guidance.

What's it for?

The scenarios outlined in Chapter 3 produce a range of potential mission sets for the ADF's amphibious warfare capability, but also underscore a central problem in the current development of the capability: the perceived absence of clearly articulated guidance from the Australian Government on the level of capability that the ADF's expected to sustain past 2017. ADF leaders must contend with this 'guidance gap'. While the 2013 DWP provided current strategic guidance to the ADF, it provided adequate guidance only over the near term, outlining only very broad, long-term objectives that may not be feasible. It also lacked coherence on the realities of budgets and the development of the ADF's force structure:

> The ADF will develop an amphibious capability based around an Amphibious Ready Element, enabling growth to an Amphibious Ready Group if required in the future. The Land Force element will initially be based on the Australian Army's 2nd Battalion, the Royal Australian Regiment, with supporting elements. Coordination and training will be critical to delivering a robust amphibious capability able to respond across the spectrum of contingencies. Initially however, Australia's amphibious capability will focus on security, stabilisation, humanitarian assistance and disaster relief tasks.[14]

While the 2013 DWP provided realistic general guidance to the ADF, the phrase, 'able to respond across the spectrum of contingencies' leaves some military planners with angst and others with a justification for an insatiable capability appetite. The higher threat and more complex mission end of the spectrum would certainly require many more supporting capabilities and greater capacity in key areas. Many leaders in defence have interpreted this to mean that the government wants a world-class amphibious warfare capability similar to that of the Royal Marines or of the US Marine Corps in the Pacific theatre, but as soon as possible just wants to be able to conduct what could be described as 'stabilisation' in an uncertain or semi-permissive environment. In addition, the decision of the Abbott government to develop a new DWP and simultaneous Force Structure Review has left current ADF leaders wary of making critical decisions about the levels of amphibious capability to be sustained past 2017 until those efforts are complete.

While in many ways it seems too simplistic and almost flippant to just ask, 'What's it for?', for defence leaders and planners the specificity of the answer to that strategic question is fundamental if the ADF is to prioritise resources and make key decisions for the future. If the threshold of expectation is so low as to include only HADR operations in

permissive or semi-permissive environments, then it's difficult to understand why the government procured LHDs rather than other, less expensive, amphibious sea transport platforms. Additionally, the designation of the ships as amphibious assault ships demonstrates that the Department of Defence envisions the development of capability that's relevant to a broader spectrum of conflict.

There's plenty of evidence that the expectation will be much higher in the 2015 DWP and involve ship to objective manoeuvre in hostile environments against near peer adversaries.[15] If that's the case, the ADF will have to commit more resources to the fundamental inputs to capabilities to sustain a relevant amphibious capability. Naturally, it's not enough to just articulate what's expected of the capability in terms of missions and environments. The Australian Government must also articulate a readiness threshold for both an ARE and an ARG (at a minimum). Maintaining a capability that's ready or on call is different from maintaining a capability that requires a significant period of preparation and mobilisation; however, the costs of an on-call force are much higher, and its force generation cycle will require detailed planning to account for a period of training and force 'reset'.

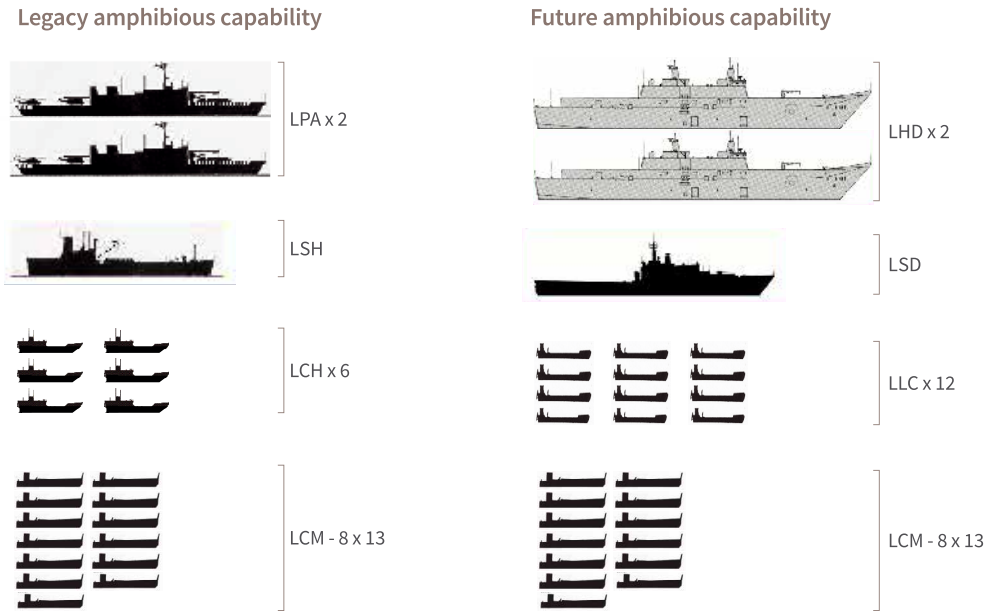
The 2013 DWP indicated a requirement for an ARE that can be launched immediately (within days), and for an ARG that can be formed within weeks or months. To fully grasp the difficulties in providing such a high-readiness force, it helps to first understand how the procurement of the LHDs has fundamentally changed the potential for amphibious warfare and then to examine what the ADF has done so far to temporarily fill the perceived guidance gap. Finally, we can examine the resource constraints and trade-offs needed to sustain different levels of amphibious capability.

More capacity and more potential

Many people familiar with the ADF will claim that Australia has always had an amphibious warfare capability. While that might be true for hardware, the quality and capacity of the capability was never adequate for the perceived strategic and operational needs. Thankfully, Australia hasn't had to employ the capability under hostile or opposed conditions since 1945. The ADF has conducted several expeditionary operations involving sea transport and in some cases amphibious sea transport, but those operations involved either a permissive landing site or even the use of an existing port facility. None involved the execution of a ship to objective manoeuvre in which a force had to defeat, deter (through tactical action) or avoid an opposing force and secure a landing site to serve as a sea point of disembarkation until a wharf or harbour facility could be secured through follow-on operations. The Army didn't see amphibious warfare as a priority and therefore didn't organise, educate or train its forces for amphibious warfare. To be clear, before the purchase of the LHDs, the ADF had some amphibious capacity, centred on HMAS *Choules* (LSD), HMAS *Tobruk* (LSH), and the two LPAs, HMAS *Manoora* and HMAS *Kanimbla*. The age of the *Tobruk*, and many problems with the LPAs, provided part of the justification for the decision to buy the two LHDs.

The LHD procurement, combined with the maintenance of HMAS *Choules*, has greatly increased the ADF's amphibious warfare capacity and potential (Figure 4). The tonnage, manpower, lane metres and helicopter landing spots available with the LHDs fundamentally change what the ADF might be able to do. As one person explained in our interviews, 'if the Australian government just wanted amphibious sea transport capability, then they certainly bought the wrong ships.' With the procurement of the LHDs, Australia has overcome a capacity challenge in developing amphibious warfare capability for large-scale ship to objective manoeuvre operations. We'll now have to overcome the challenge of integrating land forces and synchronising all of the other fundamental inputs to capability if we want to achieve the specified and implied tasks of the 2013 DWP. If the 2015 DWP increases those expectations and includes tasks that are higher on the threat and complexity spectrum, the challenge will be even more difficult and costly.

Figure 4: Australian amphibious warfare potential, before and after the LHD procurement



Tonnage		Tonnage	
LPA x 2	= 17000 T	LHD x 2	= 55000 T
LSH x 1	= 5700 T	LSD x 1	= 16200 T
LCH x 6	= 3020 T	LLC x 12	= 790 T
LCM-8 x 13	= 780 T	LCM-8 x 13	= 780 T
Total	**= 26,500 T**	**Total**	**= 72,770 T**
Embarked Force	= 1115	Embarked Force	= 2600
Lane Metres	= 790 m	Lane Metres	= 4100 m

Source: Department of Defence

Due to the guidance gap, ADF leaders, especially the service chiefs, have agreed to postpone some key decisions about the sustainment of amphibious warfare capability and take an iterative approach. In the interim, they've filled the guidance gap by interpreting the 2013 DWP in such a way as to set the highest feasible threshold (employ an ARG in an amphibious assault) for amphibious warfare capability to be achieved by 2017. The ADF will wait for clearer guidance from the upcoming DWP and Force Structure Review, which the government expects to publish in September 2015. In the meantime, the ADF has wisely planned to take full advantage of lessons learned in the validation process until 2017. However, it's important to note that many decisions about the sustainment of amphibious warfare capability after 2017 must be made before the end of 2015 if they're to be effectively implemented by 2017.

The road to 2017

The Chief of Army and Chief of Navy have agreed that by the fourth quarter of 2017 the ADF will validate the Amphibious Task Force in the conduct of a high-level amphibious warfare mission: the employment of an ARG in an amphibious assault operation under uncertain or hostile conditions. This high threshold of amphibious operations will require crews of both new ships to have been trained on the full spectrum of tasks and a landing force element to be ready to execute its tasks from the ships.

This is no small endeavour. In order to do it, the ADF established the Joint Amphibious Capability Implementation Team (JACIT), with the Navy as the lead service. JACIT has developed the Amphibious Capability Realisation Synchronisation Plan—an intricate document that sets the timeline and synchronises the execution of training tasks between the services and units involved. The plan is progressive and builds capability from individual and small unit collective training all the way through to complex joint activities and rehearsals. The schedule culminates in a joint amphibious warfare validation exercise that will be part of Exercise Talisman Sabre 2017.

For the past five years, throughout the ADF, a network of people and offices have been given the task of building an improved amphibious warfare capability that takes full advantage of the procurement of the LHDs. The network includes JACIT and the many key stakeholders in the joint amphibious domain, who come together in working groups. The Joint Capability Coordination Division chairs some of the groups. The group with the greatest authority is the Joint Amphibious Council, which has the highest level of representation from the services (two-star flag officers).

The network also includes the amphibious warfare section of the Deployable Joint Force Headquarters, manned mainly by the Army's First Division Headquarters in Brisbane. The Deployable Joint Force Headquarters developed a concept of employment (CONEMP) that updates the Amphibious Capability Statement, which is approved by the Joint Amphibious Council. In the simplest terms, the CONEMP explains what the ADF wants amphibious capability to be able to do and explains conceptually how it will execute and employ the capability. The Amphibious Capability Realisation Synchronisation Plan is a technical road map that synchronises activities to achieve some of the most difficult tasks in the CONEMP by 2017.

In the absence of the specific and enduring guidance that's expected to come from the 2015 DWP and Force Structure Review, the ADF is using the Deployable Joint Force Headquarters CONEMP to build capability for 2017. It has no complete plan for the sustainment of that capability beyond 2017 because sustainment of that level of capability will place a demand on resources that might not be available without significant changes to other ADF responsibilities, especially within the Army.

Recommendation 1 of this report is: Clarify expectations

CHAPTER 5

The way ahead: moving beyond 2017

This chapter notes problems and possible solutions in the development of amphibious warfare capability in the ADF; some of the problems apply to all joint capabilities, while some are specific to the amphibious capability. To overcome them, the ADF will have to reorganise the system of committees and working groups that's been working on the integration of the LHDs. It should also institutionalise amphibious warfare doctrine, culture and practice by adjusting command and control mechanisms and by establishing a joint Amphibious Centre of Excellence.

The trouble with joint capability

The organisations and committees, including JACIT, in the network that's coordinating the development of amphibious warfare capability are all specifically focused on getting to 2017, and some have characterised them as 'non-permanent' or 'temporary'. They were established with the intention of getting the joint force to the 2017 milestone of validating the employment of an ARG. While the work has been impressive and most realise that this structure will have to evolve, the committees and working groups are highly reliant on consensus. The system forces the services to cooperate and come to agreements on how to fill or, in many cases, mitigate amphibious capability gaps. The committees appear to be effective in getting the services to take responsibility for resourcing and integrating capability towards 2017 goals. Unfortunately, they also use a cumbersome and complicated system for generating needs statements and capability solutions. We found evidence of this throughout our interviews.

Further evidence can be found in the CONEMP, which lists more than 19 separate capability gaps and shortfalls. They include many of the same types of issue that ASPI and other defence research organisations have observed previously when looking at the development of joint capabilities (see Davies et al. 2014). In most cases, those issues involve the integration of service systems, but they also include the procurement of major systems and equipment unique to amphibious operations, as well as systems that aren't unique to amphibious operations but require modification and special considerations to be employed in the amphibious environment. While some of these gaps and shortfalls have been the subject of approved capability needs documents from the services, others, including the need for amphibious beach teams and unmanned aerial systems, have still not been addressed. The most critical need, a joint C4I (command, control, communications, computers, intelligence) suite for both LHDs, is being rapidly developed and integrated into the Amphibious Capability Realisation Synchronisation Plan and the RAN's Amphibious Capability Integration Management Schedule and is likely to be ready by the 2017 ARG capability demonstration.

One illustrative example of the criticality of joint capability management is the identified critical need for an unmanned aerial system for reconnaissance that can be launched and recovered from the ships. Such a system would provide information, surveillance and reconnaissance to the Commander Amphibious Task Group, the

Commander Amphibious Task Force (CATF) and the Commander of the Landing Force (CLF) at different stages of an amphibious operation. Even though it's one of the most critical gaps in capability and important to the entire spectrum of amphibious operations, there's no planned procurement or capability development plan at this time. Part of the reason is that this capability falls on the seams of the service-dominated capability management system within Defence. This gap requires an aerial platform (usually managed by the Air Force), launched and recovered from a Navy ship, to be used for operational and tactical level information, surveillance and reconnaissance (intelligence) by both Army and Navy elements. Who in Defence will be the capability manager?

Such a capability could fall under any one of the capability managers in Defence. In the development of future capabilities, the capability manager is responsible for both defining the user need and developing a proposal for consideration by government that takes into account the coordination of the fundamental inputs to capability: personnel; organisation; collective training; major systems; supplies; facilities and training areas; support; and command and management. The personnel to run such an unmanned aerial system will have to come from one of the services. That service will have to establish the organisation, keep the organisation trained and resource every aspect necessary for the sustainment of the capability. As the Navy requires similar systems for its other ships, it's the most likely candidate; however, the amphibious ships need to be able to conduct reconnaissance over land and transfer control and feeds to the landing force, whereas most Navy ships mightn't need such a capability.

A second example demonstrates how other service priorities might wash out joint capability needs. The current system has failed to insert consideration for amphibious warfare into the planned procurement of major service projects. This is most striking in the LAND 400 project. The current needs statement and request for tender don't address the LAND 400 marinisation shortfalls described in the CONEMP, even though the service representatives in the Joint Amphibious Council endorsed the CONEMP.

> We will be required to operate every one of our armoured and aviation platforms from the LHDs simultaneously and across a spectrum of threats.
>
> — Lieutenant General David Morrison,
> address at the Royal Australian Navy Sea Power Conference, 31 January 2012

The network of working groups established to build and integrate all the capabilities associated with amphibious warfare by 2017 is simply not suited to the long-term management of amphibious warfare needs. It must evolve. All 19 of the currently identified shortfalls and gaps are likely to be exacerbated if the organisational structure isn't replaced or modified or if the new structure fails to place the management of joint capabilities on the same level of importance and authority as the services. While the JACIT and the committee–working group structure is doing an impressive job of addressing and mitigating the capability shortfalls, it's our assessment that progress is occurring *despite the organisational structure*, and certainly not because of it. Several competent military officers and civilians are working through a system and structure that's not conducive to building and managing effective joint capability.

This observation isn't new, and the government has a plan that may help to improve the system. The 2015 First Principles Review presented recommendations that could help to reduce some of the friction in the system and help to streamline the processes for building joint capabilities and capability integration in general, and joint amphibious warfare capability in particular (FPR 2015).

Recommendation 2 of this report is: Establish and empower joint capability management.

The RAN beyond 2017

The Navy-led JACIT has developed a plan for ensuring that all of the capabilities associated with the Navy platforms will be sustainable beyond 2017. The RAN's Amphibious Capability Integration Management Schedule will facilitate the sustainment of the three major amphibious platforms—HMAS *Choules* (LSD), HMAS *Canberra* (LHD) and HMAS *Adelaide* (LHD)—at varying levels of readiness over time. By alternating the readiness status of the LHDs and integrating the LSD, the ships will be on a two-year cycle that accounts for necessary maintenance and has trained and ready crews available at all times. This means that there'll always be at least one LHD that's fully capable of integrating landing force elements on combat operations, while another LHD or LSD is ready for immediate sea transport and sea-basing tasks associated with crisis response missions, such as HADR operations, in permissive environments.

Thus, the Navy has a plan to sustain the major pieces of its amphibious warfare role while providing for strategic shaping (engagement) operations and lower threat crisis responses. It will also be able to quickly surge its capacity for contingency operations. The Army, on the other hand, faces many more challenges.

Command and control issues

One of the key areas where a high degree of specialisation is required is command and control (C2), and one of the main reasons that countries with world-class amphibious warfare capability have developed specialised C2 units is because of the inherent complexities in the planning and execution of ship to objective manoeuvre operations. In most cases, militaries have found that it's desirable to have a standing C2 organisation for the amphibious taskforce as well as a standing landing force C2 element. While the ADF has a designated Commander Amphibious Task Force (CATF) and staff, the Army currently plans to rely on the commander of 2RAR and his staff to both force-generate (raise, train and sustain) key elements of the ground combat element (GCE) and to serve as Commander of the Landing Force (CLF). The commander and staff of 2RAR are likely to experience task saturation, especially in the more complex missions that involve an ARG. The CATF is an O6 (Navy Captain), and the commander of 2RAR is an O5 (Army Lieutenant Colonel).

Many countries that have amphibious capability maintain separate commands for force generation (raise, train, sustain) and operational C2 of the landing force. They've also found that rank parity between CATF and CLF works well with a clearly delineated transition of command and supported/supporting relationships based on phases of operations. Additionally, when a standing, ready amphibious element is used for strategic shaping (engagement) opportunities and must be prepared to surge capacity by increasing to a full ARG, operating procedures need to be well established. There's no room for a learning curve in the headquarters when an organisation must transition from scheduled and routine activities into complex operations.

Recommendation 3 of this report is: Empower command and control

Culture and expertise

Just as difficult as evolving C2 and filling shortfalls in joint capability will be the necessary changes to the culture of the ADF. At present, the ADF has both a culture gap and an expertise shortfall. This is unsurprising, given that the focus in the past has been on an ad hoc landing force and a lower level LPA amphibious capability and so many ADF operations have involved making service contributions to coalition efforts. But, as the ADF develops the capability to deploy an LHD-based amphibious force able to undertake ship to objective manoeuvres and work across the spectrum of amphibious operations, it needs to undertake organisational and culture change. It must set up the means to embed amphibious knowledge and skills across the force by bringing together expertise to enable the development and sustainment of the capability:

> Our culture needs to be expeditionary in nature, taking account of the new and significant force projection capability, with a permanently embarked land combat force. The future generations of Army officers will be

> trained and exposed to amphibious operations from the outset of their careers, as a central pillar to how we fight. This will require an agile and joint mindset that we cannot claim to possess across the entire force at present.
>
> — Lieutenant General David Morrison, address at the Royal Australian Navy Sea Power Conference, 31 January 2012

As noted in Chapter 2, Australia's a maritime country without a maritime culture, and the ADF, in particular the Army, doesn't have one either. The last time the Australian military took on the full spectrum of amphibious operations was in 1945, and the knowledge and culture that developed across the services to support those operations have long since been lost. To develop an effective amphibious capability, the ADF must adapt and acculturate the force to inculcate concepts and knowledge of a maritime strategy including amphibious warfare. This isn't an inconsiderable task. Such a transformation will require a change to doctrine, operational concepts, individual and staff development, planning, unit training, and education. As Major General Stephen Day noted back in 2011, for the amphibious capability to achieve its potential:

> Australia would need to shift its focus from being a frigate force to an amphibious force while the RAAF would need to understand their significant role in defending the air space to ensure safe passage of these vessels … for its part … Amphibious thinking needs to permeate throughout the Army. (Quoted in Blenkin 2011)

At the moment, the ADF's approach is stovepiped, fragmented and often reliant in a few individuals in the Army and the Navy spread across various positions and locations.

With the LHDs coming on line and the proof of concept of the ARG required in 2017, the ADF has 'imported' knowledge through the lateral transfer of 29 highly experienced personnel from the Royal Navy and Royal Marines, as well as by facilitating the exchange of senior US Marine Corps officers to assist with training and development. The ADF has also spent a considerable amount on 'exporting' ADF officers to courses conducted in the US by the US Navy and US Marine Corps. While these moves have provided an excellent temporary stopgap to fill critical needs, these practices aren't sustainable over the long term. The ADF needs to provide more depth to the amphibious 'experts' in its ranks and to establish systems and training regimes to develop knowledge across the force.

In addition, the ADF's current organisation for amphibious warfare training lacks coherence, long-term planning and centralised control and development. There's yet to be an identified ADF replacement and career management stream in the Navy's Principal Warfare Officer (Amphibious) category to replace the Royal Marines lateral transfers. Within the Army, amphibious expertise has been achieved by specialist courses with the US Marine Corps and by postings to the 2RAR amphibious battle group, which is currently undertaking the Army's amphibious trials and development out to 2017; however, it remains unclear how the development of expertise in the Army will progress beyond then:

> … I am concerned that Army has become mired in a belief that the RAN and RAAF only provide strategic lift … [T]he acquisition of the LHD … means that all parts of Defence activity are going to be affected and will need to adjust. But we, Army, are up for the challenge.
>
> — Lieutenant General David Morrison, address at the Royal Australian Navy Sea Power Conference, 31 January 2012

The situation with broader training courses and education is no better. Currently, the amphibious experts spread across the Army and Navy and between Canberra, Sydney, Brisbane and Townsville are often called upon to provide support to ADF training and education courses. Those courses include the Army's All-Corps Major Course, the Defence Intermediate Signals Operations Course, the Amphibious Operations Planning Course at the Australian Defence Force Warfare Centre (which is delivered by the ATG and other staff from across Defence), the Australian Command and Staff College (Joint), the Centre for Strategic and Defence Studies and many other courses and programs.

In addition to continuing to meet these requirements, the ADF will need to move beyond the current arrangements to provide for a permanent and systematic way to train and certify the ARE and the ARG. This task will be done best by centralising responsibility for providing for the development and teaching of concepts and doctrine; providing input to amphibious evaluations; providing advice on capability development; and maintaining current and developing new knowledge and skills in amphibious warfare.

We firmly believe that to achieve this, the ADF needs to invest in the development of a joint Amphibious Centre of Excellence (ACE). Such a centre would be able to provide a core of amphibious experts from across the services to deliver training and education courses in both the single-service and joint environments. It would be able to deliver programs in individual training in areas from landing/assault craft and beach recovery to amphibious planning, ship to objective manoeuvre, logistics, and joint fires and airspace management. It would also be able to develop and deliver courses for the various units and headquarters in the three services, including the Deployable Joint Force Headquarters, the Joint Operations Centre, Forces Command, Maritime Operations Command, CATF, CLF, Army Brigade HQ staff, 16 Brigade, 6 Brigade, 17 Brigade, SOCOMD, RAAF personnel in Division Air Liaison Officer, Brigade Air Liaison Officer, Joint Offensive Support Coordination Centre, Supporting Arms Coordination Centre, 2RAR, and other units requiring specialist skills or personnel. Ultimately, the ACE would be a hub for the intellectual and cultural development of amphibious warfare in the ADF.

The centre would be able to house and deploy joint mobile training teams to deliver short to medium-length training programs to units in the Army during the readying phase and to provide support to single-service and joint schools and education facilities. It would also be able to house and train specialist amphibious staff officers for attachment to units in the readying and ready phases and to higher headquarters (when required) to enable high levels of specialist knowledge in amphibious planning, liaison and coordination.[16] In addition, it should be able to provide development support to specialised amphibious units, such as landing craft and small boats, the pre-landing force and the amphibious beach teams.

The ACE would be able to support the standing ATG in collective training; specifically, it would provide for the certification of individuals, units and the ARE and ARG. It would also be able to assist with the planning and development of major amphibious exercises such as Talisman Sabre, house simulation facilities, conduct post-exercise/mission analyses, and provide a hub for the development of tactics, techniques, procedures, doctrine and thinking on amphibious warfare.

We believe that the ACE would ideally be commanded by a 06 level officer to ensure parity with the CATF and CLF. This position should be a joint posting and be drawn from or rotated through both the Army and the Navy. It should be located close to the ATG HQ and the LHDs and LSD (ideally in Sydney) in order to ensure maximum coordination between the different units and headquarters. Besides a core of staff provided from the ADF, it could have some positions filled by rotation, permanent attachment, or on an affiliation basis by civilian experts or by exchanges with allied and partner forces such as the US Navy and Marine Corps, the Royal Navy and Royal Marines, the New Zealand Defence Force, the Japan Self-Defense Forces and the militaries of Indonesia, Singapore, India, Malaysia, Thailand, South Korea, Philippines or even other NATO countries. The ACE should aim to be not just a national but also a regional centre of excellence in amphibious warfare, and thus could play an important role in building partner capacity through participation in the Defence Cooperation Program and having overseas military students on selected courses and programs.

The creation of an ACE will embed expertise within the ADF, draw together the various existing threads of amphibious knowledge and expertise, break down stovepipes, bring training and education together in a joint environment, and provide ADF members with training and education based on Australian doctrine and tactics, techniques and procedures (as opposed to those from overseas military forces). Furthermore, the centre would enhance opportunities for amphibious specialists from all three services for postings and career enhancement, as well as providing a cultural and intellectual hub in amphibious warfare that ensures professionalism for the ADF.

Recommendation 4 of this report is: Establish a joint Amphibious Centre of Excellence.

CHAPTER 6

The Army's many challenges

In building and sustaining an amphibious warfare capability, the Australian Army has faced the toughest challenges and continues to face the toughest decisions. The gap in government guidance for the capability makes it very difficult for the Army to make the key decisions necessary to sustain landing force capability and readiness beyond 2017.

The central problem for the Army is in determining how much combat force and support forces must be dedicated to the amphibious warfare mission compared with how much can be trained to a minimum standard of amphibious operations proficiency (as opposed to expertise). Making this determination is a critical first step in developing a plan to sustain capability. Most importantly, there are several important support capabilities that are needed to enable the raising, training, sustainment and readiness of the Plan Beersheba brigades. In addition to supporting the brigade readiness cycle, some of those support forces also enable special operations. While this task should be made easier by the upcoming publication of the 2015 DWP and Force Structure Review, some key facts and general information are also important in solving the problem:

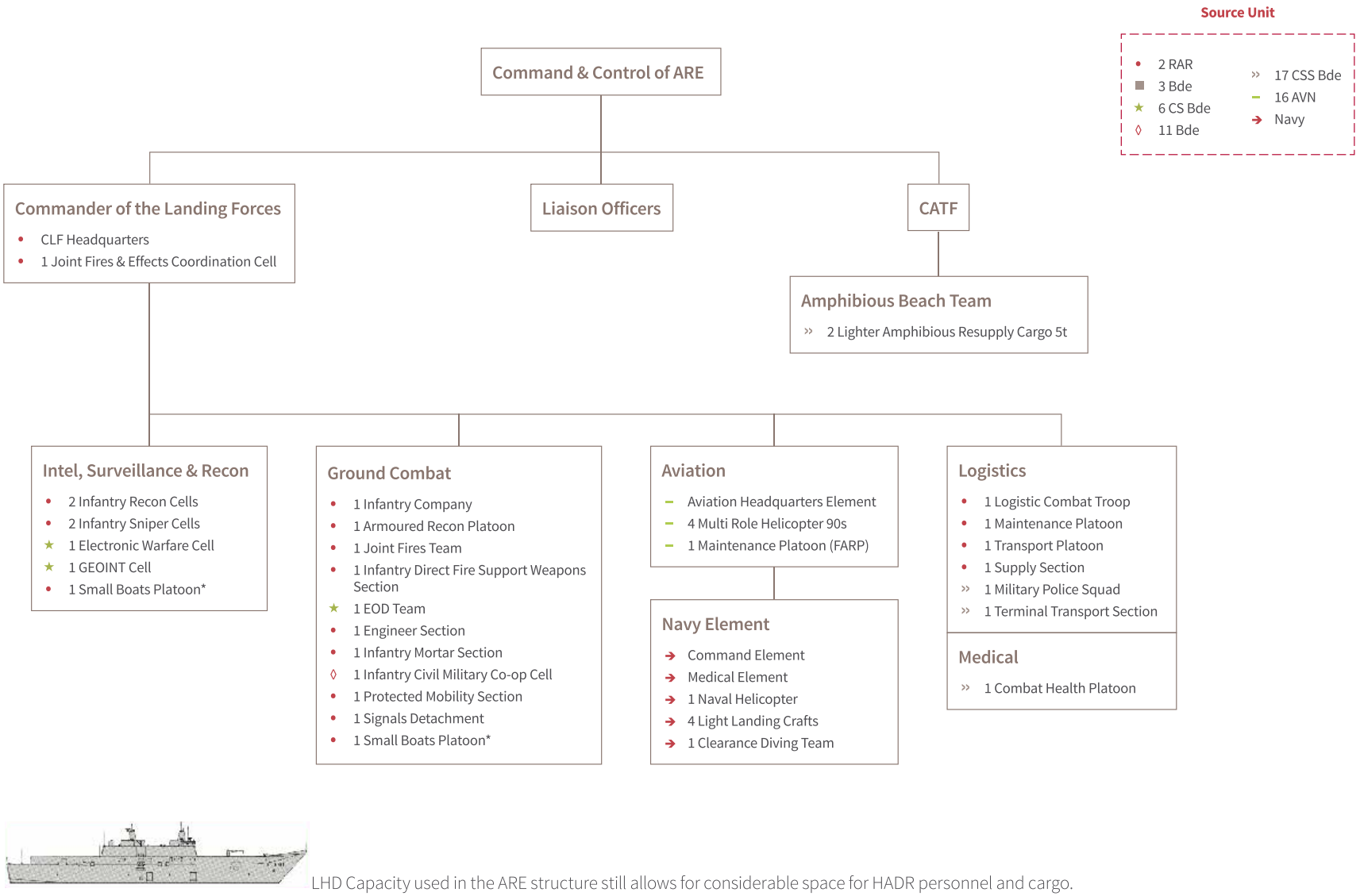
- The conduct of amphibious warfare operations, even in the most permissive environments, requires high levels of training and specialisation in the landing force. No country has an amphibious warfare capability supported by C2 and landing force elements that aren't specialists in individual and collective amphibious warfare tasks.
- The more dangerous the environment and sophisticated the enemy, the more complex the amphibious operation will be.
- The more complex the amphibious operation, the more specialised landing force components need to be.

Managing specialisation

It's because of these three considerations that the Army has designated 2RAR as the core of its specialised amphibious warfare ground combat element (GCE). The GCE is that element of the landing force that does the fighting and provides security for the landing site through ground combat power. The landing force also includes the C2 element (CLF), the intelligence, surveillance, target acquisition and reconnaissance element, the rotary wing element, and the logistics combat element (Figure 5).[17]

Any element's need for specialisation is highly dependent on the enemy situation and environmental considerations in general. Although the Army has chosen to have the core of its GCE (2RAR) specialise in amphibious warfare operations, it isn't necessarily the GCE that requires the highest degree of specialisation in amphibious warfare tasks. However, high degrees of specialisation are needed across the spectrum of threat conditions among the other elements of the landing force, including the C2, aviation crews, reconnaissance elements, logistics elements and the pre-landing force.

Figure 5: Proposed core ARE structure



LHD Capacity used in the ARE structure still allows for considerable space for HADR personnel and cargo.

* Serves a dual role in supporting ISR and Ground Combat, but sits within ISR.

Even though the Army has designated 2RAR as the dedicated amphibious element, its forces make up only the core of the GCE. The Army must task other, non-specialised units from around the Army with providing units to fill out the GCE and to provide the other enabling units for the intelligence, surveillance, target acquisition and reconnaissance element, the rotary wing element and the logistics combat element. Currently, a number of these elements come from the Army's 3rd Brigade, which is co-located with 2RAR in Lavarack Barracks, Townsville. Most of the other forces must come from the Army's limited specialty brigades, including the 16th Aviation Brigade, the 6th Combat Support Brigade and the 17th Combat Service Support Brigade. These enabling capabilities are also required to support the Army's readiness and force generation cycle, Plan Beersheba, and SOCOMD. It's of critical concern that, if these enabling units are specialising in amphibious warfare to the degree required for the most complex missions, they can't simultaneously provide high levels of support to the Army's ready brigade, readying brigade and SOCOMD. If the Army needs to constitute more combat power than an ARE, it must task even more force and capability to 2RAR's mission (see figures 6 and 7). This places further demands on the enabling capability of the ready brigade.

For the culminating exercise in 2017, the Army plans to have 2RAR fully manned (the unit is expanding to the three combat teams needed to fill out the templated ARG task organisation); other GCE elements that make up the ARG will be provided from 3rd Brigade. The rest of the landing force will be tasked from the specialty brigades. This will come temporarily at the expense of the Plan Beersheba ready brigade and possibly its Ready Battle Group (RBG— a reinforced and enabled combat battalion that's prepared for short-notice deployments).

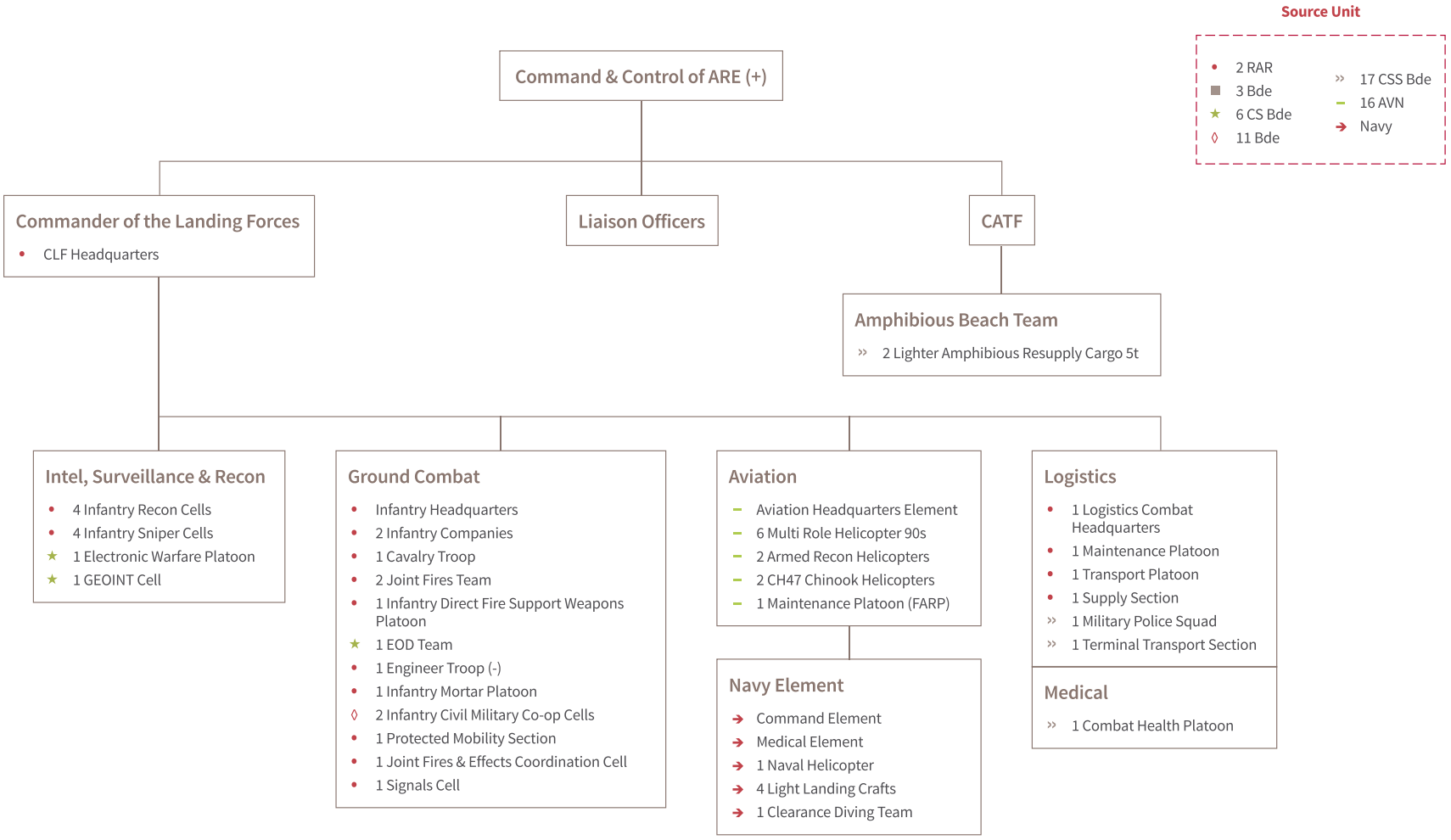
The Army's Plan Beersheba has been the centrepiece of Lieutenant General David Morrison's tenure as the Chief of Army (see Figure 8). In implementing the plan, the Army fundamentally changed its force structure and implemented a new force generation cycle. The intention behind Plan Beersheba was to create a balanced force that would be prepared, relevant, and adaptable to the broadest spectrum of missions likely to be faced by the Army. Rather than optimising major combat formations for specific types of mission sets, the Army chose the force design to support brigade-level readiness for crises and the ability to mobilise and surge in the event of major contingencies. The new force structure established three matching combat brigades with a balance of light, medium and heavy ground forces supported by assigned combat support and service support elements. These matching brigades rotate every year on a three-year cycle between reset, readying and ready statuses.

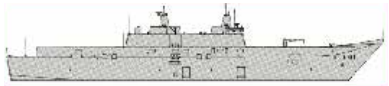
This three-to-make-one cycle is similar to the force generation cycles used by many military forces throughout the world. The reset phase allows a brigade to conduct maintenance on major systems, take leave, conduct individual training and manage professional schooling, among other tasks. The readying phase allows for a brigade to conduct higher and higher levels of collective training until it can be validated in a large-scale exercise (Exercise Hamel), in which the brigade proves that it can accomplish all of its combat mission tasks. Once it's validated, the brigade assumes the duties of the ready brigade for 12 months while the other two brigades are in reset and readying statuses. The ready brigade is required to have an RBG on standby for short-notice deployments.

The Army has invested a great deal of time, effort and money into Plan Beersheba. Unfortunately, some Army elements, including 2RAR and much of the specialty brigades, don't have the capacity to fit the three-to-make-one force generation cycle of the Beersheba combat brigades. These units must run tighter readiness cycles and must be prepared to support both the ready brigade and the collective training of the readying brigade. Meeting the need for the very same support forces from the specialty brigades to support the amphibious warfare capability, the readying brigade, the ready brigade and SOCOMD will simply be beyond the capacity of many of those elements.

Many in the Army who routinely deal with raise, train and sustain issues have explained this tension using a range of examples. Many have proposed different conceptual options to address the problem of the simultaneous force generation of a combat-ready brigade and a combat-ready amphibious capability. The options generally fall into three categories, but none of them solves the problems associated with the shortage of support forces and the tension between the need for amphibious warfare specialisation and the need to simultaneously support a readying and a ready brigade. The Army's force generation problem therefore involves the simultaneous and continuous sustainment of an effectively supported ready brigade and a specialised amphibious warfare capability.

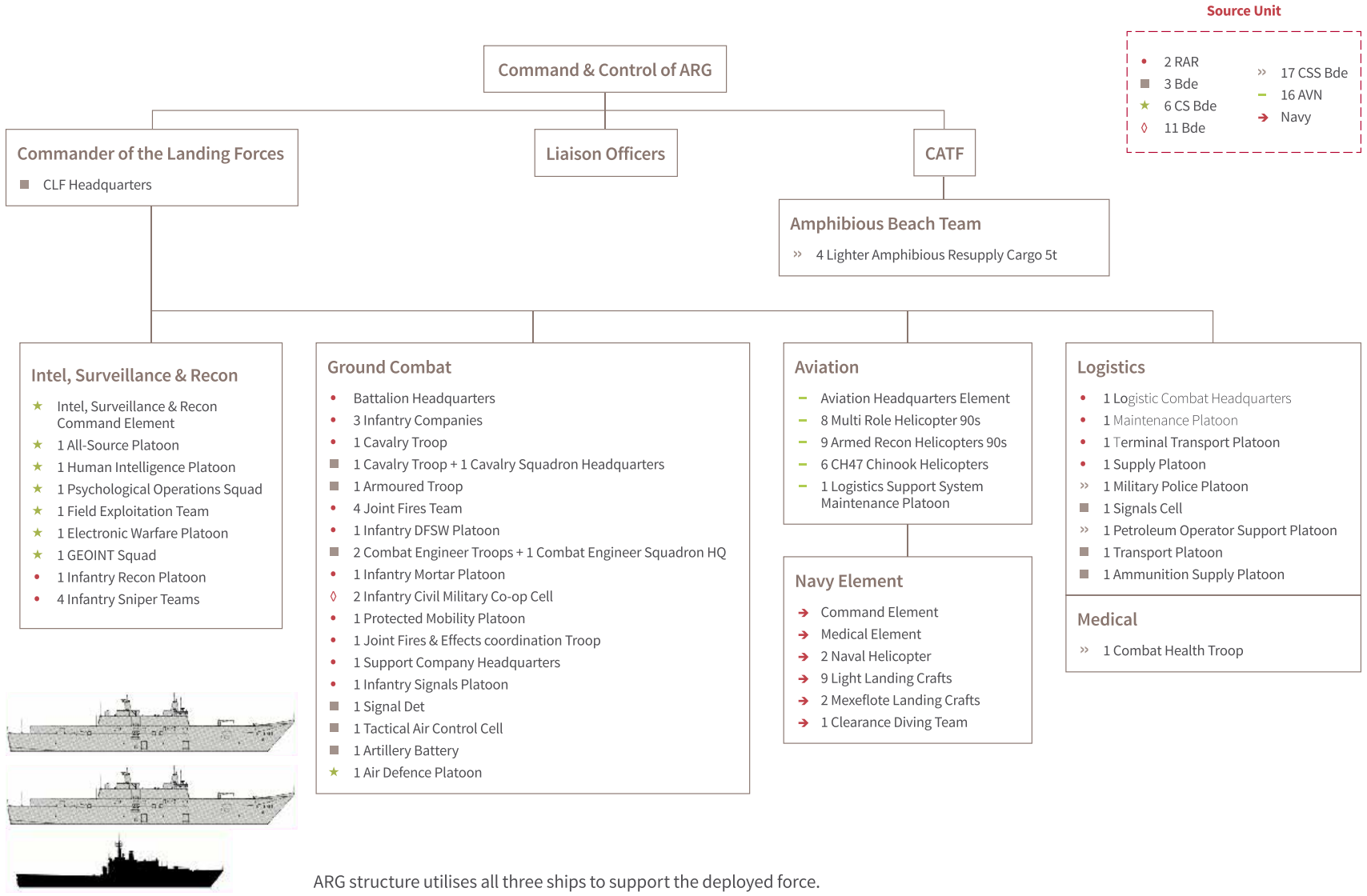
Figure 6: Proposed core reinforced ARE structure





LHD Capacity used in the ARE+ structure does not allow space for HADR personnel and cargo.

Figure 7: Proposed core ARG structure



ARG structure utilises all three ships to support the deployed force.

Figure 8: Plan Beersheba

The Army's options

How is the Army to maintain Plan Beersheba and maintain an amphibious warfare force that can conduct strategic shaping operations and be ready for crises and contingencies? Three distinguishable options have been proposed within the Army. In assessing this issue, we specifically address the problem in terms of the Army maintaining a constant ready brigade, a ready ARE and the ability to form an ARG-level capability within a feasible time.

The first option is to maintain the status quo, with 2RAR as the dedicated amphibious unit. 2RAR is assigned to 3rd Brigade, which is the only brigade with an additional infantry battalion. This gives 3rd Brigade the additional responsibility of overseeing the raising, training and sustaining of amphibious warfare capability within one of its battalions. Several years ago, the Army designated 2RAR as the infantry battalion that would form the core of the GCE of the landing force for an ARG. The Chief of Army at the time, Lieutenant General David Morrison, recognised this as a temporary solution:

> Over the course of about five years we're going to let 2RAR develop that capability as we bring these ships into service and we start to understand what it means to be an amphibious ready element … Then we're going to make some decisions about how we spread that capability across more than just 3rd Brigade, but we're going to learn that as we go. (Wellfare 2012)

While this has allowed for 2RAR to develop specialisation, it still relies on enabling capability from 3rd Brigade and the specialty brigades. To make a force generation cycle work past 2017, 2RAR would have to be on its own three-to-make-one cycle to maintain the core of the GCE of an ARE.[18] The requirement to surge to an ARG, however, would be likely to require 2RAR to keep its entire force on a short mobilisation call, limiting its ability to conduct reset and readying tasks. With minor adjustments to the current plan, it appears that 2RAR could maintain a ready ARE, and possibly surge to an 'ARE+',[19] but would have much greater difficulty forming a third combat team from an element that was in reset in order to form an ARG. However, this needs to be tested further.

While this option has the advantage of maintaining a highly specialised amphibious force that can undertake operations on the more difficult end of the threat and mission spectrum, it would be difficult to sustain, especially when 2RAR is required to surge to its full strength to provide the GCE for the ARG. Nevertheless, this option is feasible if the government intends to maintain a ready ARE and only a limited ability to surge to an ARG.

Unfortunately, this option has a great disadvantage in that it doesn't 'spread that capability across more than just 3rd Brigade' (to use Lieutenant General Morrison's phrase). Maintaining 2RAR as the bespoke ARE and ARG also requires the support of 3rd Brigade for an ARG. The other brigades won't have this additional requirement.

The second option would be to create an amphibious brigade out of 3rd Brigade. This is the course of action favoured by many in the Army and by most of the former Royal Marines in the force. This option matches the British organisation the most closely. Designating an amphibious brigade would solve the specialisation issue, as most elements of the landing force would be able to concentrate on amphibious warfare tasks. Additionally, over time, the brigade would be on its own internal three-to-make-one cycle, could easily provide most of a ready ARE and could quickly support an ARG GCE, the logistics combat element, and intelligence, surveillance, target acquisition and reconnaissance. However, this option may break the Plan Beersheba model and would raise questions as to the role of the other two brigades in the force.

The third option would be to rotate responsibility for both the ARE and the ARG across the Army as part of the Beersheba force generation cycle. This would mean that the ready brigade would be responsible for providing an ARE in addition to, or as part of, the RBG. Under this option, the ready brigade would be able to fill out most of the landing force enabling capability. Also, the special brigades would have to focus only on supporting the ready and the readying brigades, which simplifies the mission by focusing training on only two customers. The 16th Aviation Brigade, for example, would most likely have its aircraft on a two-to-make-one cycle in order to meet the aviation requirements for a ready brigade and a readying brigade.

This course of action also assumes that 2RAR would eventually be disbanded, and the end strength would be transferred to the units of key support forces that would experience growth over time—personnel being one of the most expensive fundamental inputs to capability. If the ADF wants to increase key support forces capability in the special brigades to allow them to better synchronise with Plan Beersheba, disbanding 2RAR would seem to make sense, although there would also be inevitable high costs involved in such a large transition of force structure.

However, this option suffers from a lack of specialisation in key amphibious warfare tasks. The disbanding of 2RAR would also mean the splintering of specialised knowledge in amphibious warfare development over the five years to 2017[20]. In addition, as missions and expectations move up the spectrum of threat levels and complexity, this option accepts more and more risk and becomes less and less desirable. It risks the Army becoming 'a mile wide and an inch deep' in amphibious warfare. It's also instructive that every other military conducts amphibious operations has some level of specialisation in its force to deal the great complexity of these operations. However, if the government decides to limit the expectations assigned to its amphibious capability, for example by requiring only a sealift capability, this option could work.

The Fourth Way

We believe that there's a fourth option open to the Army that would provide both depth and breadth and leverage the enabling capabilities in the Army as much as possible. This option combines the best elements of options 1 and 3.

To provide a highly capable and high-readiness GCE for an ARE, the Army should continue to develop 2RAR as its amphibious core and specialised amphibious unit. By rounding out 2RAR to three combat teams, and modifying its task organisation to include a small boats company and additional combat support, the Army will harness the depth of knowledge and skills that it's been fostering in this unit and provide the core of the GCE for any amphibious force that it deploys.

By completing the development to three supported combat teams, 2RAR would be able to move into its own internal reset, readying and ready phases for the ARE's CGE. Aligning this plan to the proposed C2 structure and Amphibious Centre of Excellence (ACE) outlined in this report would allow the HQ of 2RAR to concentrate on a raise, train and sustain function, with the ready combat team's under the operational control (OPCON) of the standing CLF.

Under this option, 2RAR would also be able to provide a unit-level HQ for use by the CLF and the ability to surge the unit in certain contingencies if required for an ARE+. The 2RAR combat team that forms the GCE of the ARE would also form the specialist core of any ARG. Under this model, 2RAR's ready company would routinely provide security for HADR and conduct strategic shaping and engagement activities for its ARE mission. With its amphibious focus and specialisation, this core element could serve in amphibious reconnaissance roles, provide the core of a pre-landing force for operations, and provide an initial entry capability that can set conditions for the main surface landing of the ARG. This combat team would provide an ARG with a first-in, first-out capability of highly skilled and trained amphibious experts.

To also give the Army breadth across the entire force, the scalability function of the Army GCE should come out of the RBG in the ready brigade to form a Battle-Group Landing Team (BLT) as part of the ARG. During the readying cycle, the ACE could provide support to the readying brigade to build up a level of amphibious proficiency across the brigade, specifically targeted at the RBG. At the completion of Exercise Hamel, the RBG forming the BLT would then be able to participate in a series of sea exercises to gain knowledge and experience operating with the Amphibious Task Group and working under the permanent HQ of CLF. Using the 2RAR amphibious combat team and RBG in the ready brigade to form the bulk of the ARG would utilise the existing support elements from the 6th, 16th and 17th brigades that have already been allocated to the ready brigade, thereby avoiding the need for those brigades to separately support both an ARG and the ready brigade.

If the ADF were required to mount a major operation in the primary operating environment that required the ARG to seize and open an air point of disembarkation, a sea point of disembarkation, or both, the 2RAR specialised amphibious force, combined with SOCOMD capabilities, would facilitate the deployment of the BLT ashore.

If the ADF were required to mount a major operation in the primary operating environment that required the ARG to seize and open an air point of disembarkation, a sea point of disembarkation, or both, the 2RAR specialised amphibious force, combined with SOCOMD capabilities, would facilitate the deployment of the BLT ashore. Once ashore, the BLT would be able to transfer back to its parent brigade on that brigade's arrival in theatre; the 2RAR

amphibious combat team would return to the ATG as soon as was practical to provide for a reserve or take on additional tasks as required by the higher operational HQ.

Using this model, the Army would be able to build both depth (2RAR amphibious expertise) and breadth (RBG–BLT combination, amphibious proficiency) across the force. With the RBG and ready brigade rotating in Plan Beersheba, within six years all of the infantry-based battle groups would have been through the RBG–BLT cycle and, over time, amphibious knowledge would continue to grow across the entire force. Units and subunits of the 6th, 16th and 17th brigades would gain even more knowledge, given their different force generation cycle. This method would require the growth of support elements to support 2RAR's development as an amphibious unit and core component of the pre-landing force, but would still require the Army to determine how it will provide all of the supporting elements for the standing ARE, especially in terms of logistics and aviation. However, it allows for the development of a highly capably and scalable amphibious force that can perform the broad spectrum of amphibious operations at levels of graduated readiness that integrate into Plan Beersheba cycles.

Recommendation 5 of this report is to: Establish tiered amphibious readiness, integrated into Plan Beersheba, in the Army.

Recommendation 6 is to: Commission an Army staff study to determine the priority growth necessary for the development of key combat support and combat service support capacity.

CHAPTER 7

Conclusion

With the acquisition of the two LHD amphibious assault ships, Australia has committed the ADF to the path of developing an amphibious warfare capability that's relevant and ready for the challenges of the future. Our strategic position as an island nation in a rapidly changing littoral region reinforces the need for an amphibious capability that can continue to improve and adapt in the years to come. This ASPI study has been designed to help leaders in the Australian Government and the ADF to make critical decisions to achieve that end.

By implementing the six recommendations in this report, the Department of Defence and the ADF will be far more able to sustain a credible and useful amphibious capability beyond the 2017 proof-of-concept exercises. There remain other areas in need of study, such as protection of the embarked force from anti-ship systems, the great potential for the integration of US and New Zealand forces to help overcome ADF shortfalls, and the geographical dispersal of the land components and available port infrastructure for the LHDs. However, our six recommendations will help to set the conditions for the further evolution of Australia's amphibious warfare capability. We stress that the next few years provide for the ability to test some of the assumptions in this report and innovate for solutions and concepts that will further drive the capability development process.

By clarifying its expectations, the Australian Government will provide the ADF, and especially the Army, with the information that they need to make difficult decisions about how many resources to invest in amphibious capability and readiness. By improving joint capability management across the board and fully implementing the recommendations of the First Principles Review, the ADF will be better able to manage the continuing development of joint capabilities that are relevant to the amphibious warfare mission set.

By empowering command and control for amphibious warfare, the ADF will ensure the continuity and specialisation needed for amphibious warfare tasks. Treating amphibious warfare C2 as the full-time job of a permanent joint structure will prevent costly operational errors in amphibious operations. By establishing a joint Amphibious Centre of Excellence, the ADF will capture its existing amphibious warfare expertise and ensure that its organisational culture maintains knowledge and continues to innovate in ways appropriate to future contexts.

By establishing a system of tiered amphibious readiness, the Army can balance the need for depth and breadth in amphibious warfare specialisation and proficiency across its ranks while maintaining the strategic logic and efficacy of Plan Beersheba. Finally, by commissioning an internal staff study on support forces, the Army can identify and prioritise the necessary growth in key enabling capabilities.

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NOTES

1 The fundamental inputs to capability, as defined in Department of Defence (2010), are personnel; organisation; collective training; major systems; supplies; facilities and training areas; support; and command and management.

2 Although specifics differ between different military forces, for the purpose of this study an Amphibious Ready Group (ARG) is an amphibious force in which the landing force (or land component) is centred on an infantry battalion (three infantry companies), supported by other combined arms and support elements (often called a 'battle group'). An ARG is capable of conducting a broad spectrum of amphibious combat operations. An Amphibious Ready Element (ARE) is a smaller amphibious force (about one-third the size of an ARG) in which the landing force is centred on an infantry company, supported by other combined arms and combat support elements in proportion to its size. An ARE is capable of conducting a narrower spectrum of amphibious operations, including small-scale raids and security operations.

3 For more details on the relationship between amphibious warfare and Australian strategic policy, see Dean (2014).

4 Australia's major trading partners are no longer solely in Europe. In descending order, they are China, the US, Japan, Singapore, the UK, the Republic of Korea, New Zealand, Thailand, Germany, Malaysia and the countries of Southeast Asia.

5 General James Amos made this comment repeatedly during his time as Commandant of the US Marine Corps. See Simoes (2014).

6 This 'fifth' mission category is recognised in the latest version of the US joint amphibious doctrine released in mid-2014 (DTIC 2014).

7 The utility of the ADF amphibious capability in supporting disaster relief in Australia shouldn't be overlooked. This is especially significant, given the amphibious capability shortfall that the ADF suffered during Cyclone Yasi. See Cooper (2011).

8 An overview of the capabilities of LHDs is at www.navy.gov.au/fleet/ships-boats-craft/lhd. HADR missions have been a key element in the argument for the development of the LHD capability, and those missions are at the core of the ADF's emerging amphibious capability (Department of Defence 2013).

9 See Department of Defence, *Operation Southern Indian Ocean* online.

10 For further details of the RAN's deployments of its amphibious vessels in HADR missions, see SPCA (2005).

11 For example, HMAS *Tobruk* undertook a non-combatant evacuation operation in Solomon Islands in 2000 as part of Operation Plumbob to evacuate more than 480 civilians from Honiara to Cairns after the security of the Honiara Airport couldn't be assured.

12 No new US Navy amphibious ships will be provided for this ARG. Instead, three or four traditional amphibious ships will be released from other operations to form the new group once the US Navy's new joint high speed vessels, afloat forward staging bases, dry cargo logistics ships and littoral combat ships come into service. See CSIS (2014) and CBSAPA (2015).

13 An expeditionary strike group is larger and more capable than an ARG. It's a taskforce built around one or more large-deck amphibious ships, such as LHDs or LHAs. Australian Commodore Peter Leavy commanded the expeditionary strike group (Task Force 176) during RIMPAC 2014. (See Gorton 2014).

14 The 2013 DWP (Department of Defence 2013) discusses amphibious capability in paragraphs 8.12 to 8.14.

15 See the speeches of Kevin Andrews and David Feeney at the ASPI Future Surface Fleet conference.

16 These measures relate to the recommendations on stability within the Army to achieve a standing ARE and specifically a proficient ARG drawn from the ready brigade within Plan Beersheba.

17 The Australian Army is also using the term 'combat support element' in place of 'logistics combat element'.

18 2RAR isn't yet at full strength. At the time of writing, it has only two combat companies, although it's expected to grow to three companies before 2017 and, with enough time, be able to demonstrate a battalion.

19 The ARE+ force structure consists of the ARE plus additional combat power as appropriate to the mission. Some elements within the Army are proposing that a middle-range force package, which consists of an ARE plus an additional combat team, be named an Amphibious Ready Unit.

20 2RAR began training in amphibious warfare in 2012 in preparation of HMAS *Canberra* being commission in November 2014.

ACRONYMS AND ABBREVIATIONS

ACE	Amphibious Centre of Excellence
ADF	Australian Defence Force
ARE	Amphibious Ready Element
ARG	Amphibious Ready Group
ARG-MEU	Amphibious Ready Group and Marine Expeditionary Unit
ATF	Amphibious Task Force
ATG	Amphibious Task Group
BLT	Battle-Group Landing Team
C2	command and control
CATF	Commander Amphibious Task Force
CLF	Commander of the Landing Force
CONEMP	concept of employment
DWP	Defence White Paper
GCE	ground combat element
HADR	humanitarian assistance and disaster relief
HMAS	Her Majesty's Australian Ship
JAC	Joint Amphibious Council
JACIT	Joint Amphibious Capability Implementation Team
LHD	landing helicopter dock
LPA	landing platform amphibious
LPD	landing platform dock
LSD	landing ship, dock
LSH	landing ship heavy
NATO	North Atlantic Treaty Organization
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RAR	Royal Australian Regiment
RBG	Ready Battle Group
SOCOMD	Special Operations Command

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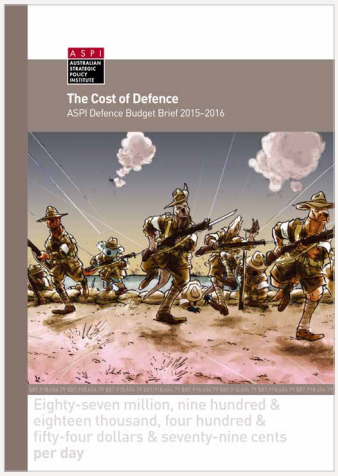

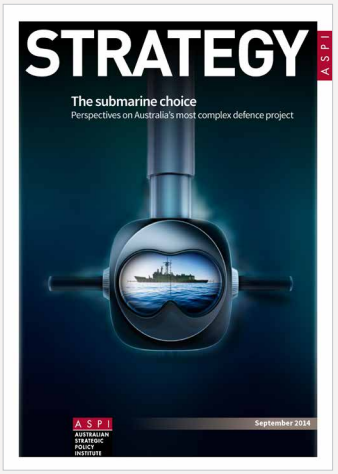

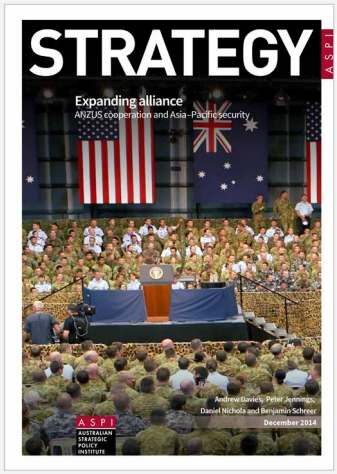

Beyond 2017

The Australian Defence Force and amphibious warfare

The delivery of Australia's new amphibious warships, HMAS *Canberra* and *Adelaide*, is an important milestone in the ADF's quest to develop a strategically relevant amphibious warfare capability. Australia's position in the world makes the effort a strategic imperative, but the ADF still has a long way to go and many critical decisions ahead if it's to develop an amphibious warfare capability that's ready for future challenges. The resources committed to the effort and the associated opportunity costs have been and will be substantial, and the overall need for the capability must be weighed against other priorities, but if Australia's going to do it, we should do it properly.

This ASPI study began with the question, 'What decisions do ADF leaders need to make in order to ensure that Australia has an amphibious warfare capability that's effective and relevant to future challenges?' The aim was to identify some of the key decisions to be made over the next two years and provide specific recommendations on them. Over many months, we interviewed key offices and individuals involved in the effort to develop the amphibious capability.

We've developed six recommendations that can directly inform the decisions of leaders in the Australian Government and the ADF:

1. Clarify expectations
2. Establish and empower joint capability management
3. Empower command and control
4. Establish an Amphibious Centre of Excellence
5. Establish tiered amphibious readiness within the Army
6. Commission a study to prioritise the Army's enabling capabilities.

If the Australian Government wants to produce a true amphibious capability, there's much to be done. This short paper outlines what we think are some of the crucial steps.

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